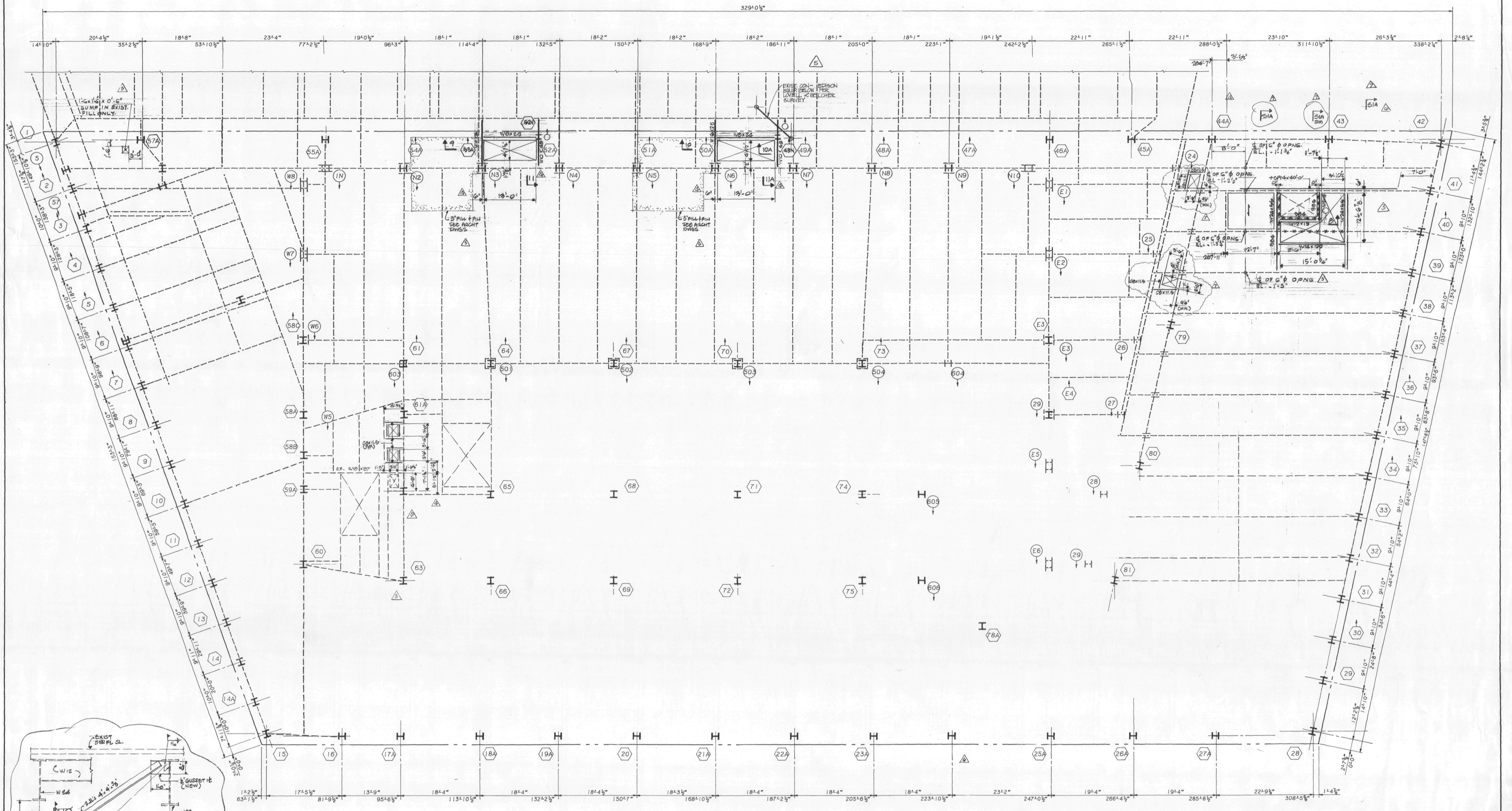
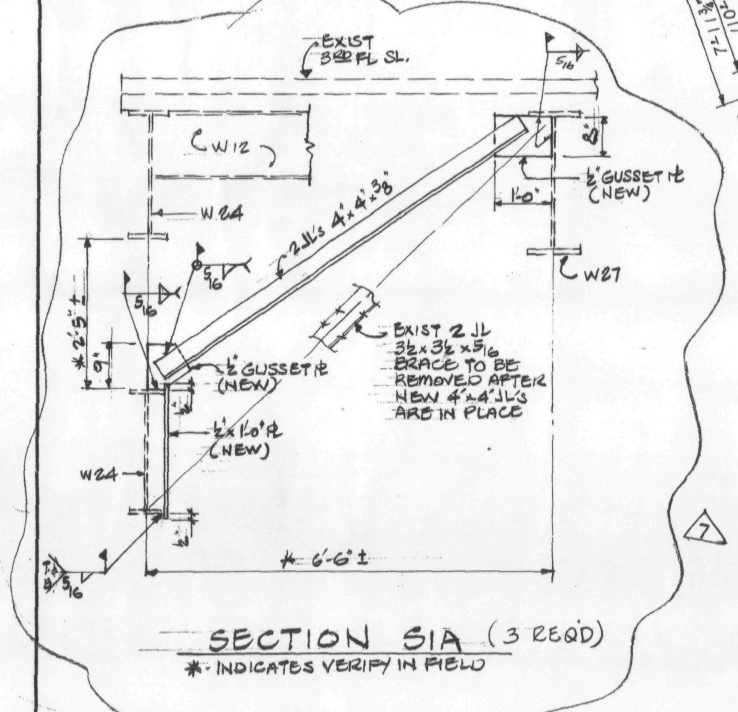


3RD FLOOR FRAMING PLAN



SECTION 51A (3 REQ'D)
*- INDICATES VERIFY IN FIELD

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. [⊠] INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. ⬡..N INDICATES NEW POST OR COLUMN.
10. —⧖— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. EL.± --- FROM TOP OF STEEL BEAM △3
11. CR... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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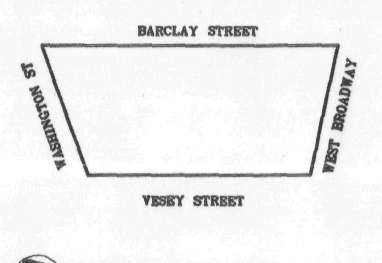

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
7	10-9-89	REVISED AS CIRCLED
6	8-15-89	REVISED AS CIRCLED
5	5/22/89	REVISED AS CIRCLED.
4	5/22/89	REVISED AS CIRCLED
3	4/6/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONSTRUCTION
1	12/19/88	SUBMITTED TO PA FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

3RD FLOOR FRAMING PLAN

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Date:
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Sheet No. S-1

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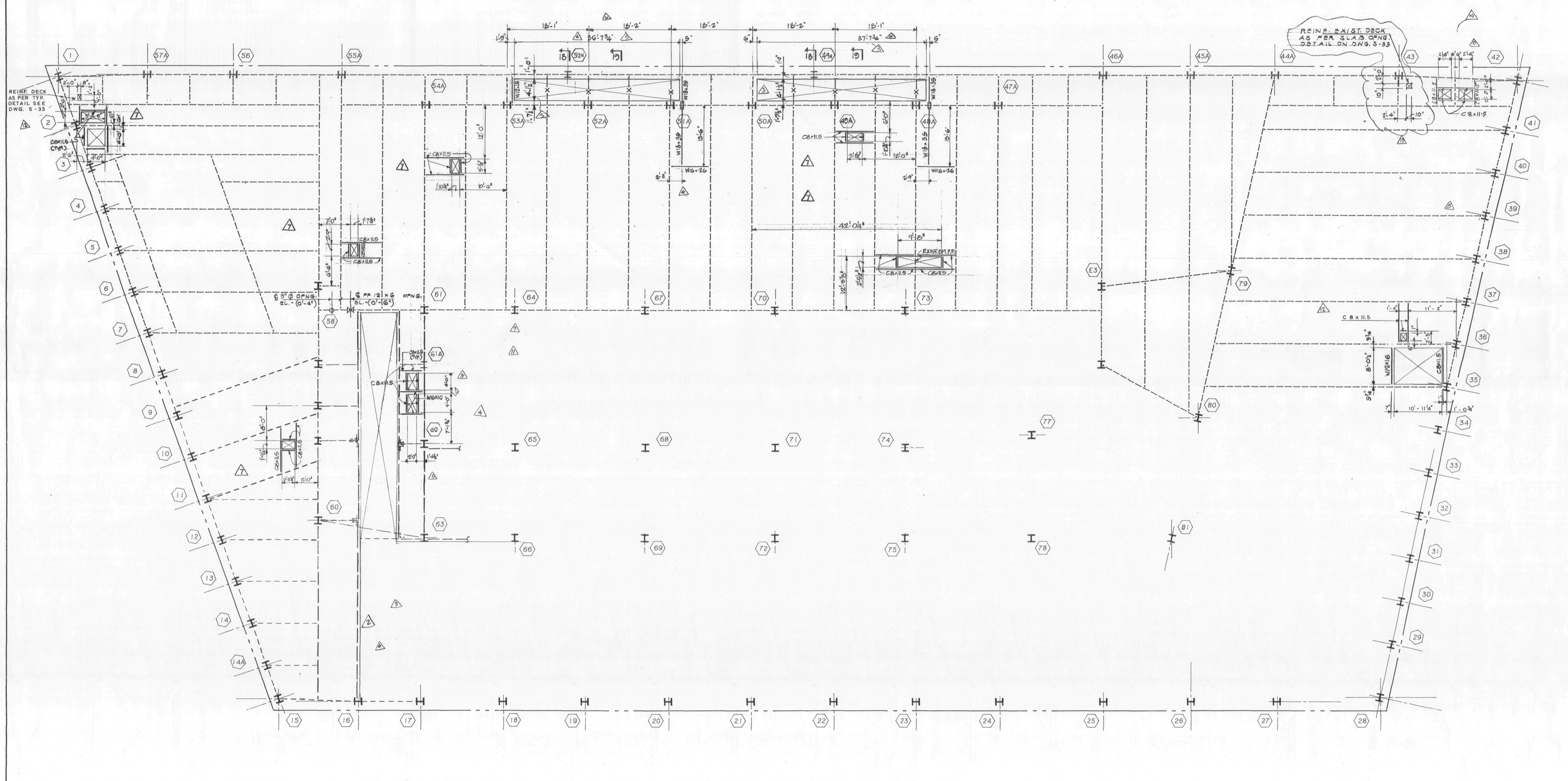

4TH FL. FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. ⬡ ..N INDICATES NEW POST OR COLUMN.
10. —⧖— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS ±----- FROM TOP OF STEEL BEAM
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

△4

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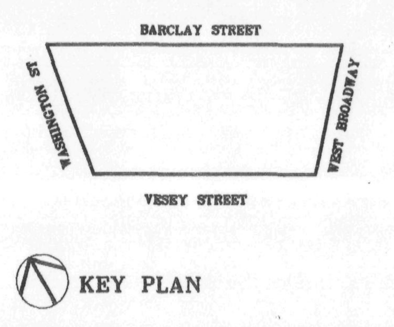

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
13	8-17-90	ISSUED FOR BULLETIN #116
12	6-7-90	ISSUED AS BULLETIN No 94
11	2/12/90	ISSUED FOR BULLETIN NO. 58
10	1/26/90	ISSUED FOR BULLETIN NO 45
9	10/9/89	REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	8/10/89	ISSUED FOR FIELD SKETCH
6	5/32/89	REVISED AS CIRCLED
5	5/22/89	REVISED AS CIRCLED
4	4/6/89	REVISED AS CIRCLED
3	1/20/89	REVISED AS CIRCLED
2	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO PA FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

4TH FLOOR FRAMING PLAN

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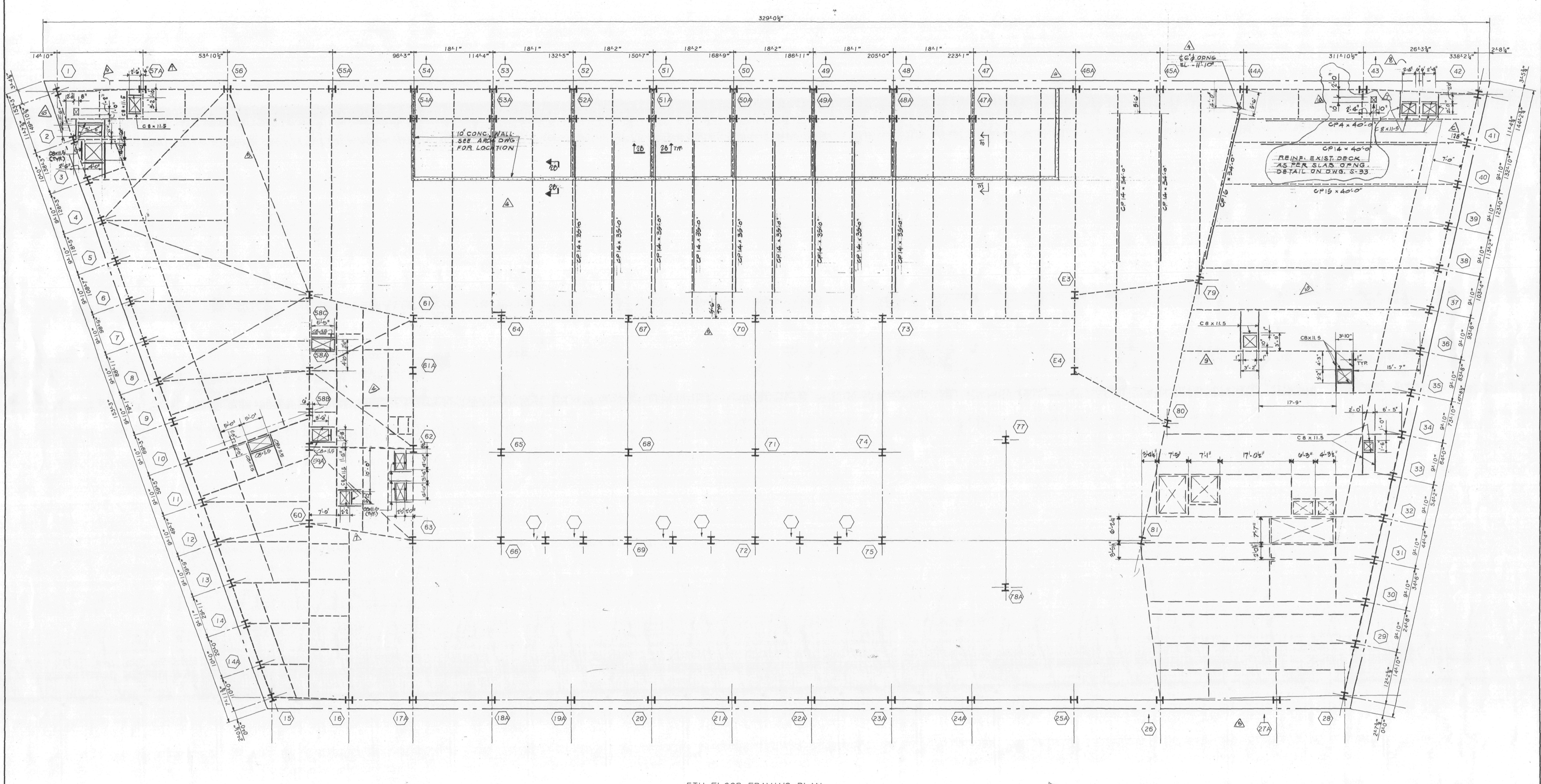

5TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 14" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟵⟶ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. ⬡..N INDICATES NEW POST OR COLUMN.
10. —⧗— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
12. △ INDICATES TYPE OF EXISTING CONNECTION REINF. DETAIL, SEE DETAIL ON DWG. S-33

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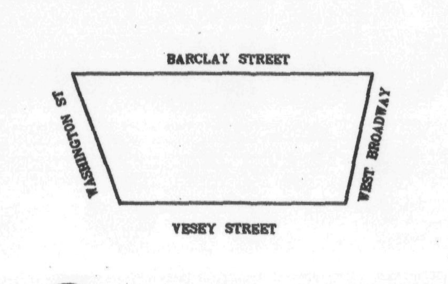

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10	8-17-90	ISSUED FOR BULLETIN #116
9	6-7-90	ISSUED FOR BULLETIN No 94
8	1/28/90	ISSUED FOR BULLETIN NO. 45
7	8/15/89	REVISED AS CIRCLED
6	8/10/89	ISSUED FOR FIELD SKETCH
5	5/22/89	REVISED AS CIRCLED
4	4-6-89	REVISED AS CIRCLED
	4-1-89	ISSUED TO CON EDISON FOR APPROVAL
3	3/1/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/22/88	REV. AS CIRCLED
	10/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

5TH FLOOR FRAMING PLAN

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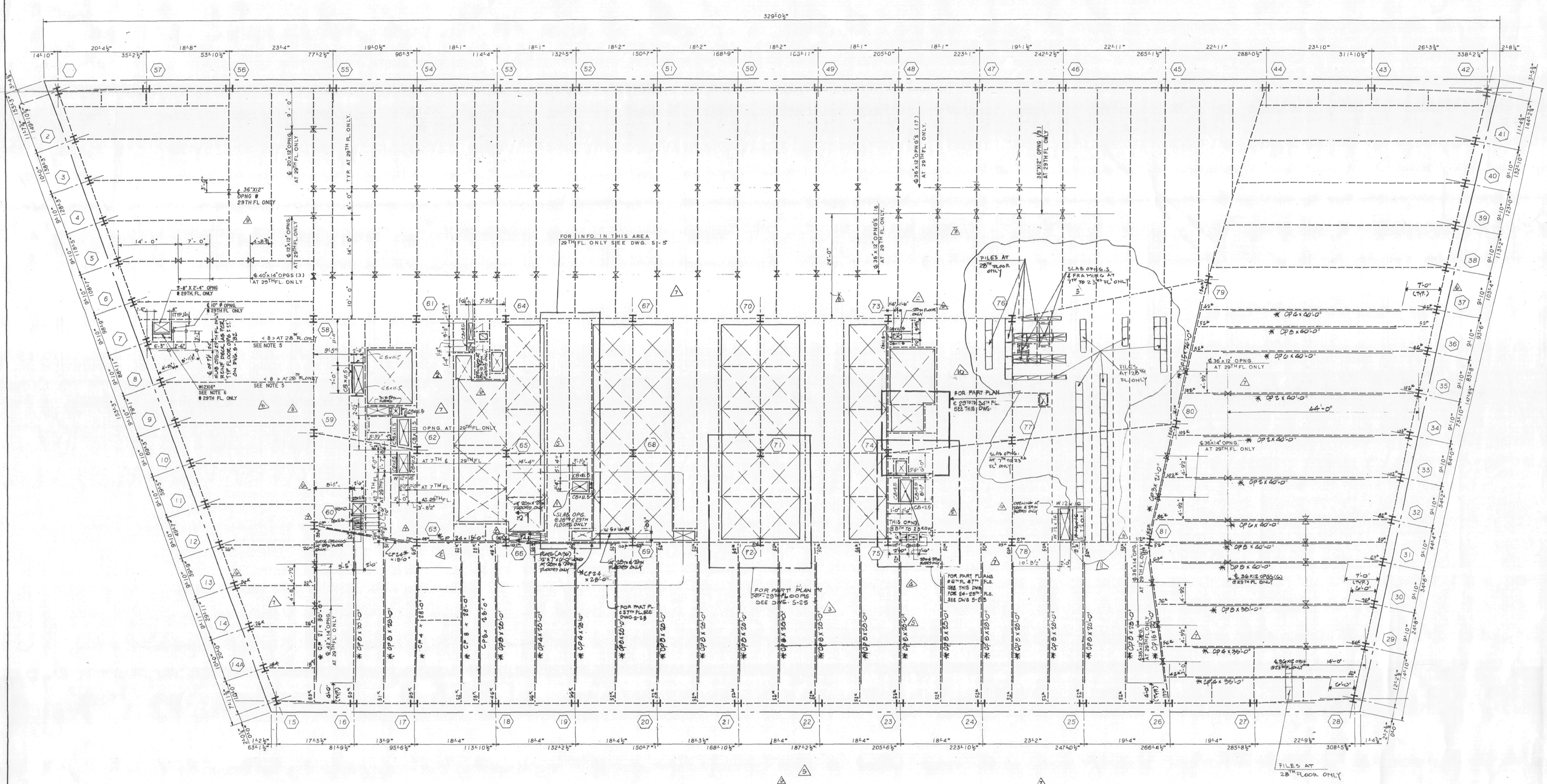
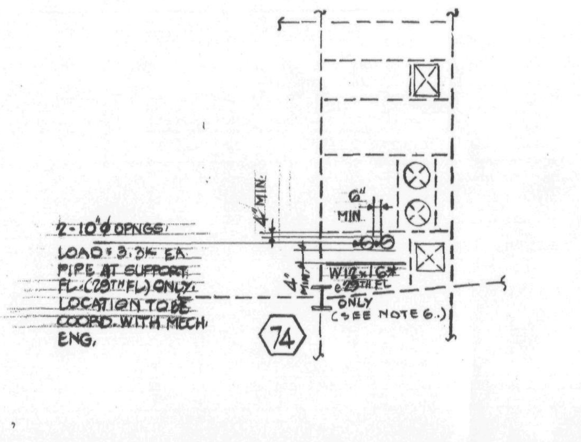


TYPICAL FLOOR FRAMING PLAN - 7TH TO 29TH FLOORS

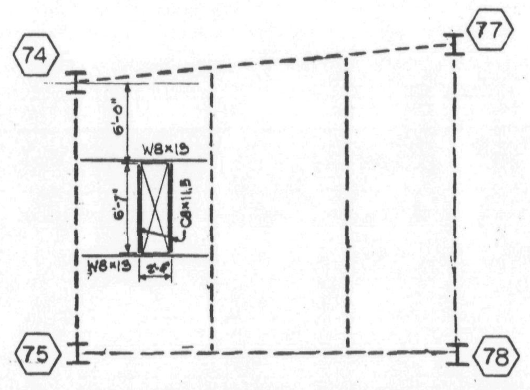
7TH TO 14TH FLOORS AS SHOWN - 15TH TO 29TH FLOORS SIM.

NOTES:

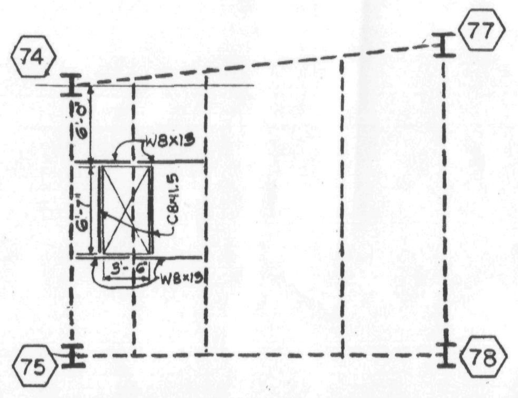
1. FOR NOTES NOT SHOWN SEE DWG. S-2
2. FOR PART PLANS AT 6TH FL. SEE DWG. S-25
3. ADDITIONAL EXIST. BEAM REINF. PLATES NOTED WITH AN ASTERISK * (OCCUR AT 28TH FL. ONLY)
4. ⟶✱⟶ INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS (----) INDICATING DISTANCE BELOW TOP OF STEEL. BEAM.
5. WHERE NOTED PROVIDE 5" ø CORE IN SLAB, PLACE ONE STUD PER CORE LOCATION, SPACED WITHIN NEW MECH. ROOM.
6. WHERE NOTED PLACE BEAMS TIGHT TO UNDERSIDE OF DECK AT RIB CLOSEST TO OPENINGS SHIM AT 1/4 POINT AS REQUIRED.



PART PLAN - 29TH TO 34TH FL.



PART PLAN - 6TH FLOOR



PART PLAN - 7TH FLOOR

ATTACHMENT "A"

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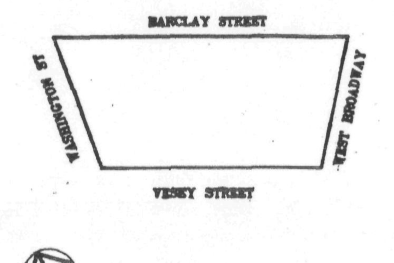

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11	8/23/94	ISSUED FOR TENANT ALTERAT.
10	10/4/93	CHILLED WATER LINE RELOCAT.
9	6/2/93	ISSUED FOR ADDENDUM No. 1
8	5-21-93	ISSUED FOR TENNANT ALTERATION
7	7-3-90	ISSUED FOR BULLETIN #103
6	8/15/89	REVISED AS CIRCLED
5	4/6/89	REVISED AS CIRCLED
4	3/1/89	REVISED AS CIRCLED
3	1/20/89	REVISED AS CIRCLED.
	1/3/89	ISSUED FOR CONST
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER OF THE CANTOR/SEINUK GROUP

7TH TO 29TH FLOOR FRAMING PLAN

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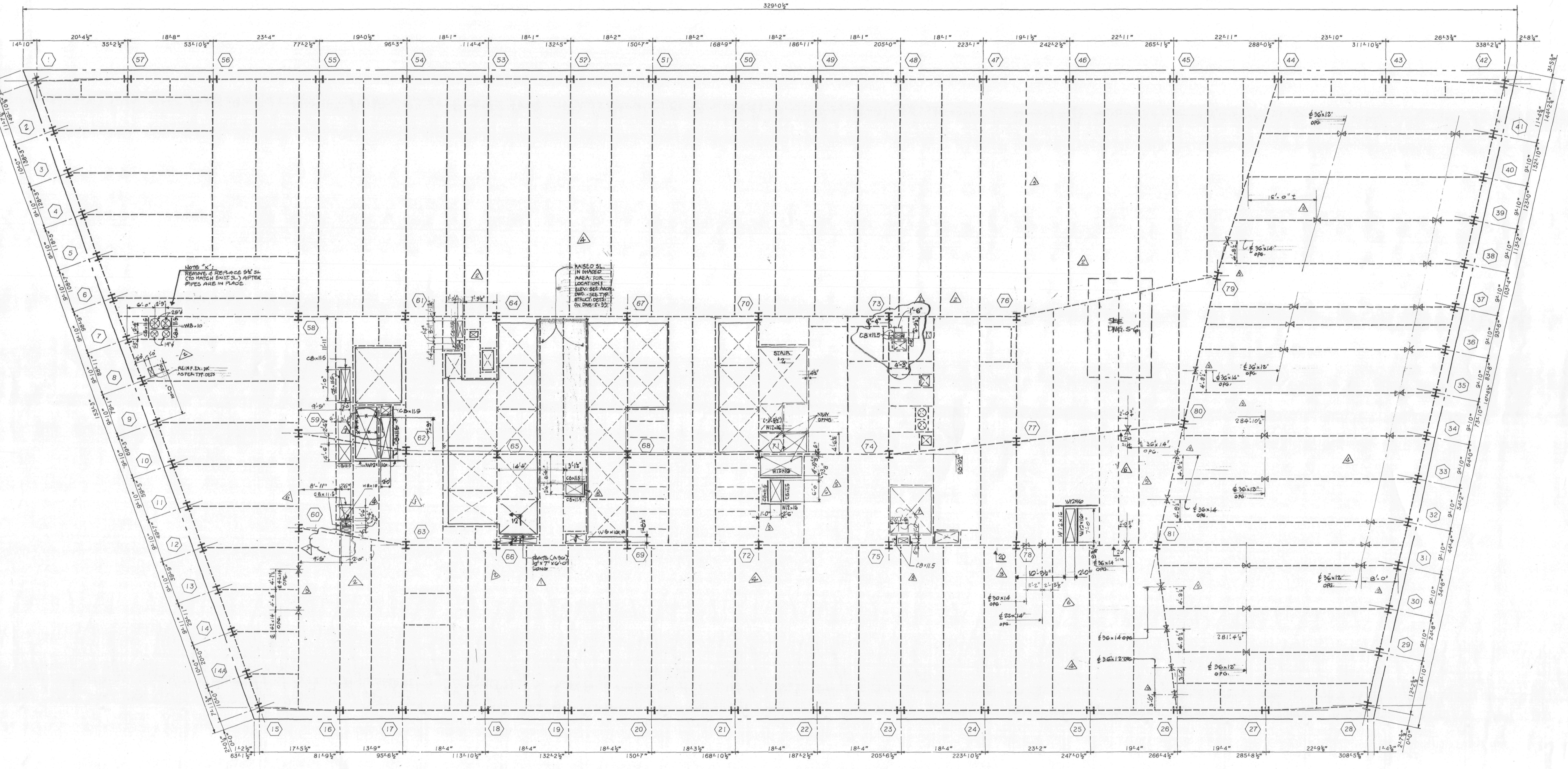

30TH FLOOR FRAMING PLAN

NOTES:
1. FOR NOTES NOT SHOWN SEE DWG. S-2.

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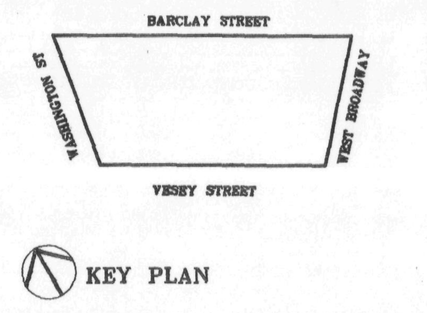

NOTES

LEGEND

No.	Date	Revision
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/13/89	ISSUED FOR CONST.
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

30TH FLOOR
FRAMING PLAN

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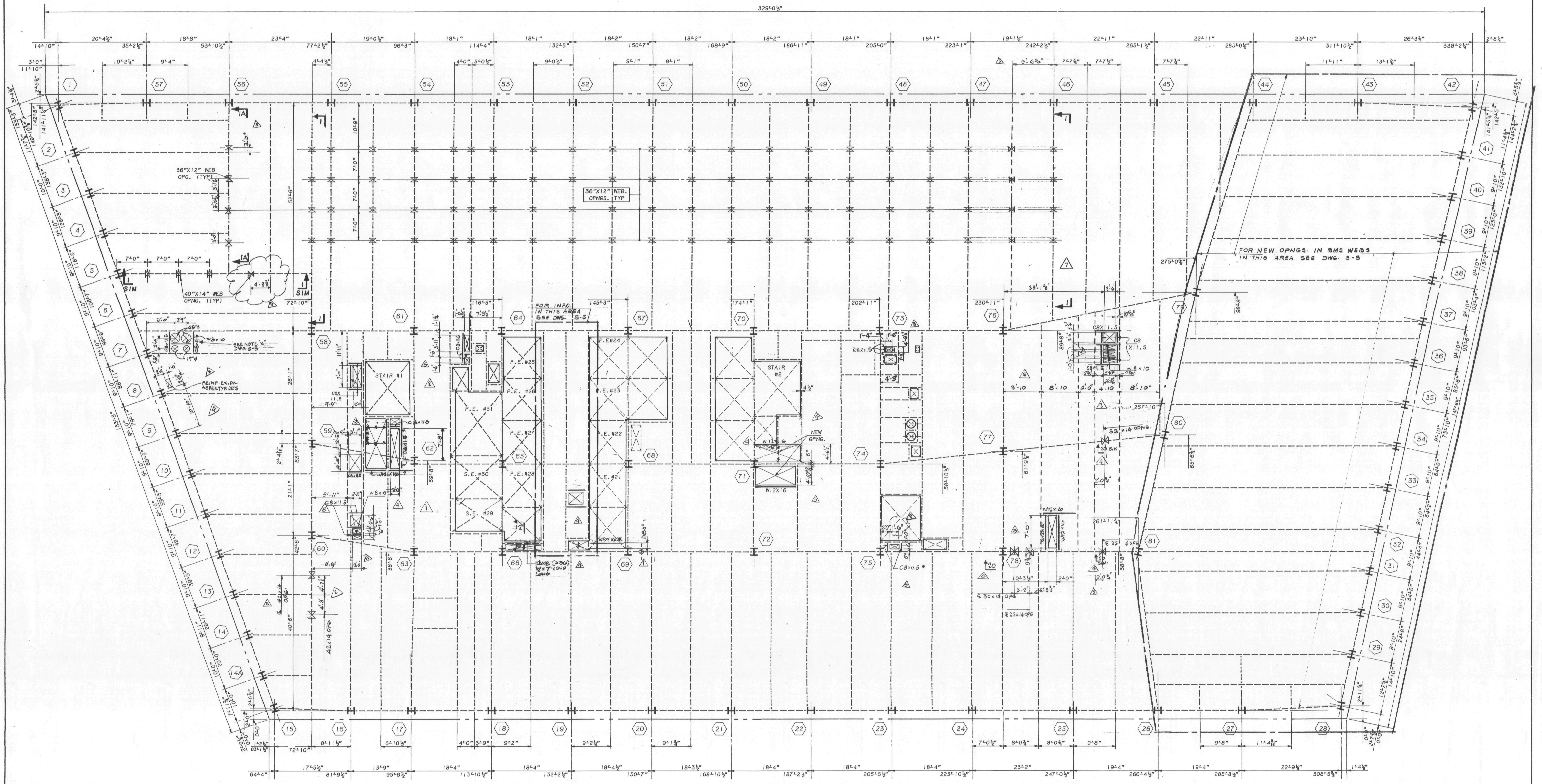


31ST FLOOR FRAMING PLAN

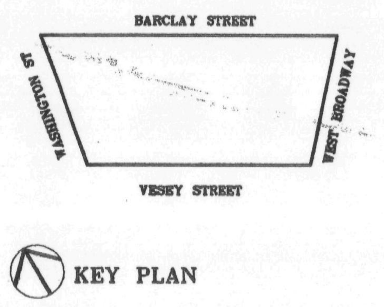
NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. [X] INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS --- INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

STATE OF NEW YORK — IRWIN G. CANTOR No. 32548 — LICENSED PROFESSIONAL ENGINEERS

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9		REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	6/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEVATION
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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31 ST. FLOOR FRAMING PLAN

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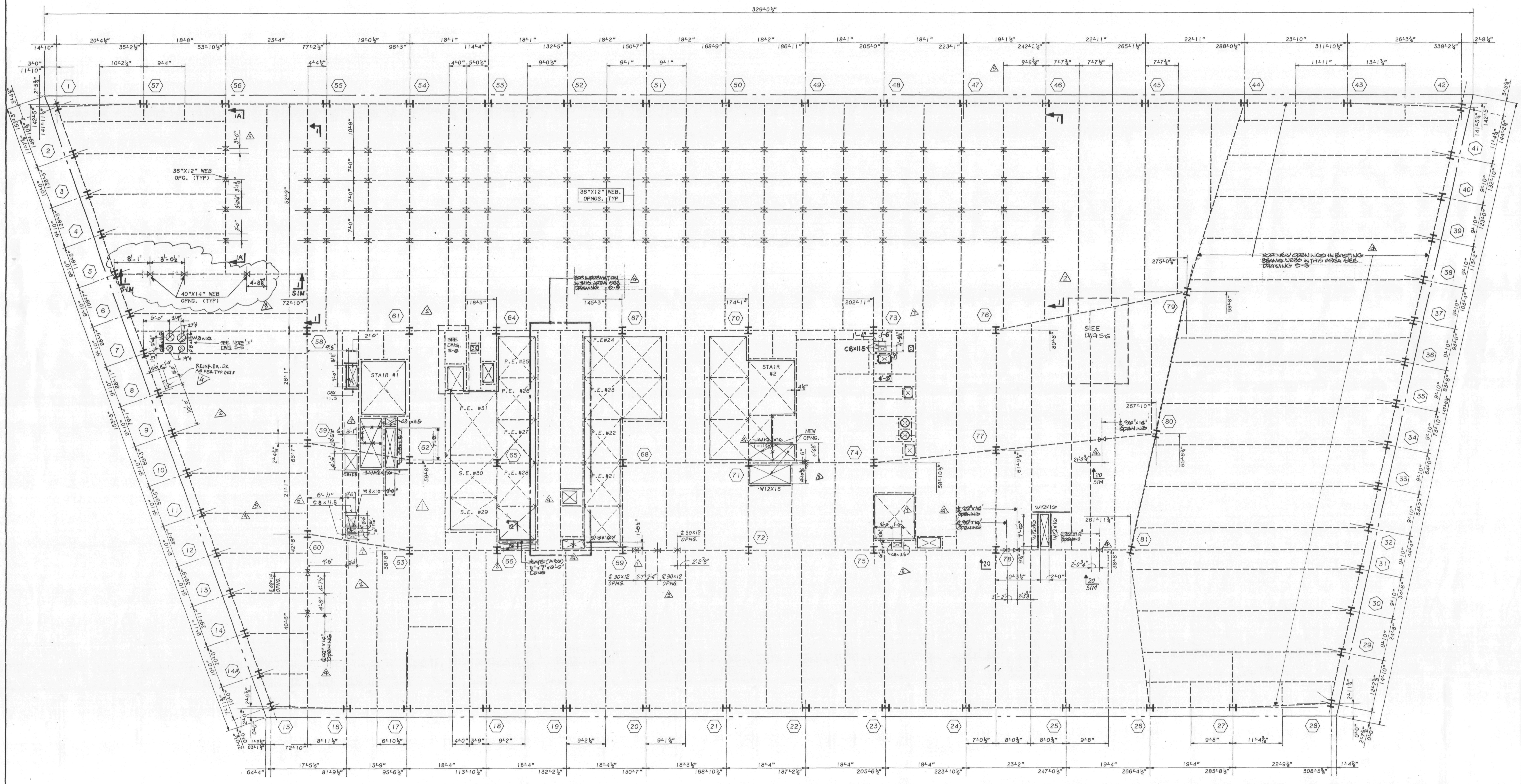

32ND FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
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5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. ⟨...N⟩ INDICATES NEW POST OR COLUMN.
10. —☓— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS -...... FROM TOP OF BEAM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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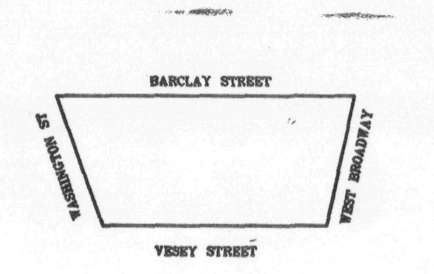

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

STATE OF NEW YORK · IRWIN G. CANTOR No. 32548 · LICENSED PROFESSIONAL ENGINEER

32ND. FLOOR FRAMING PLAN

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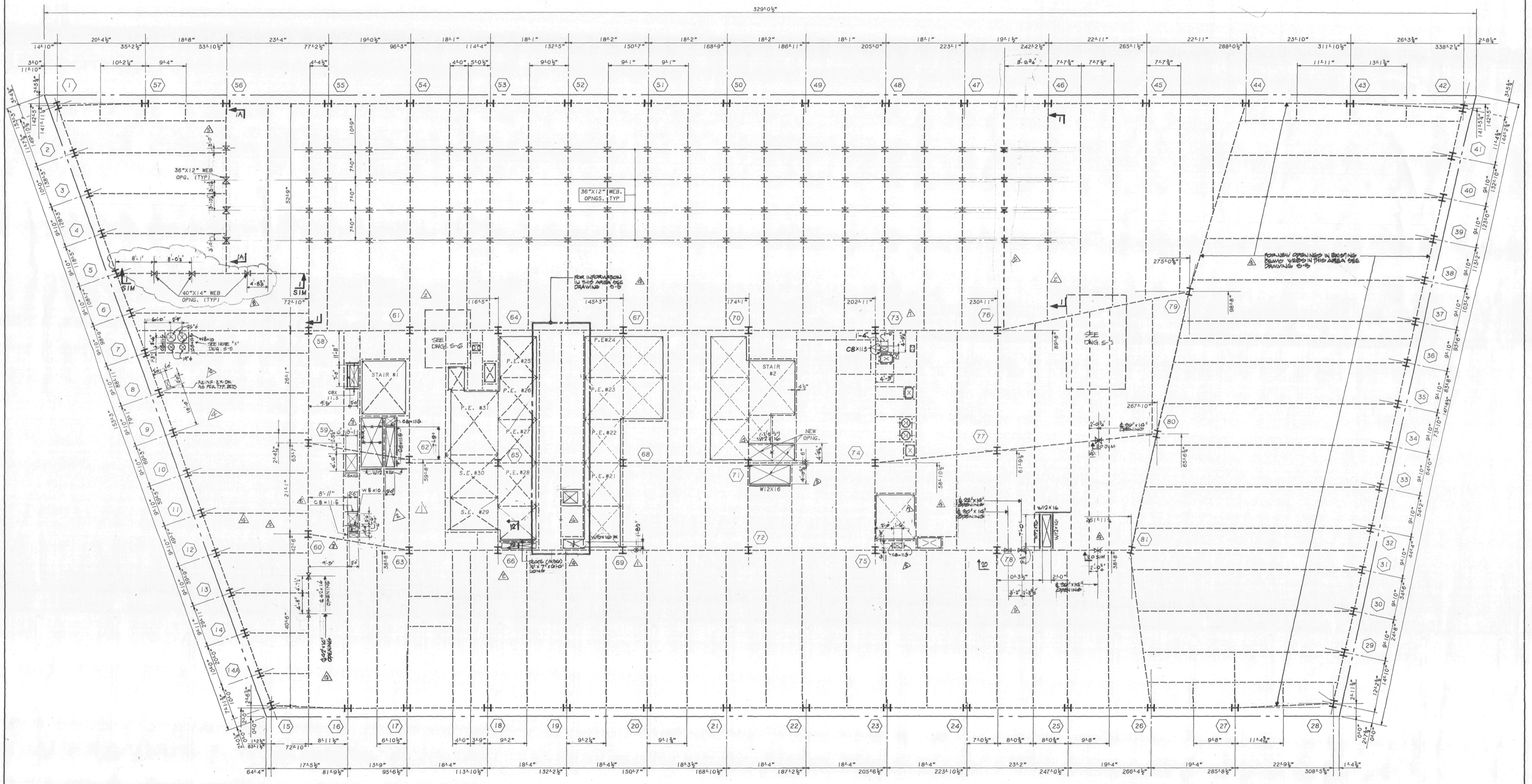

33RD FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ------ INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. —☓— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS -..... FROM TOP OF BEAM
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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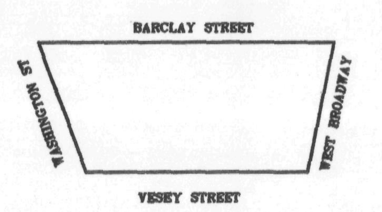

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4-6-89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV...
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATION

SOM SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

33RD FLOOR FRAMING PLAN

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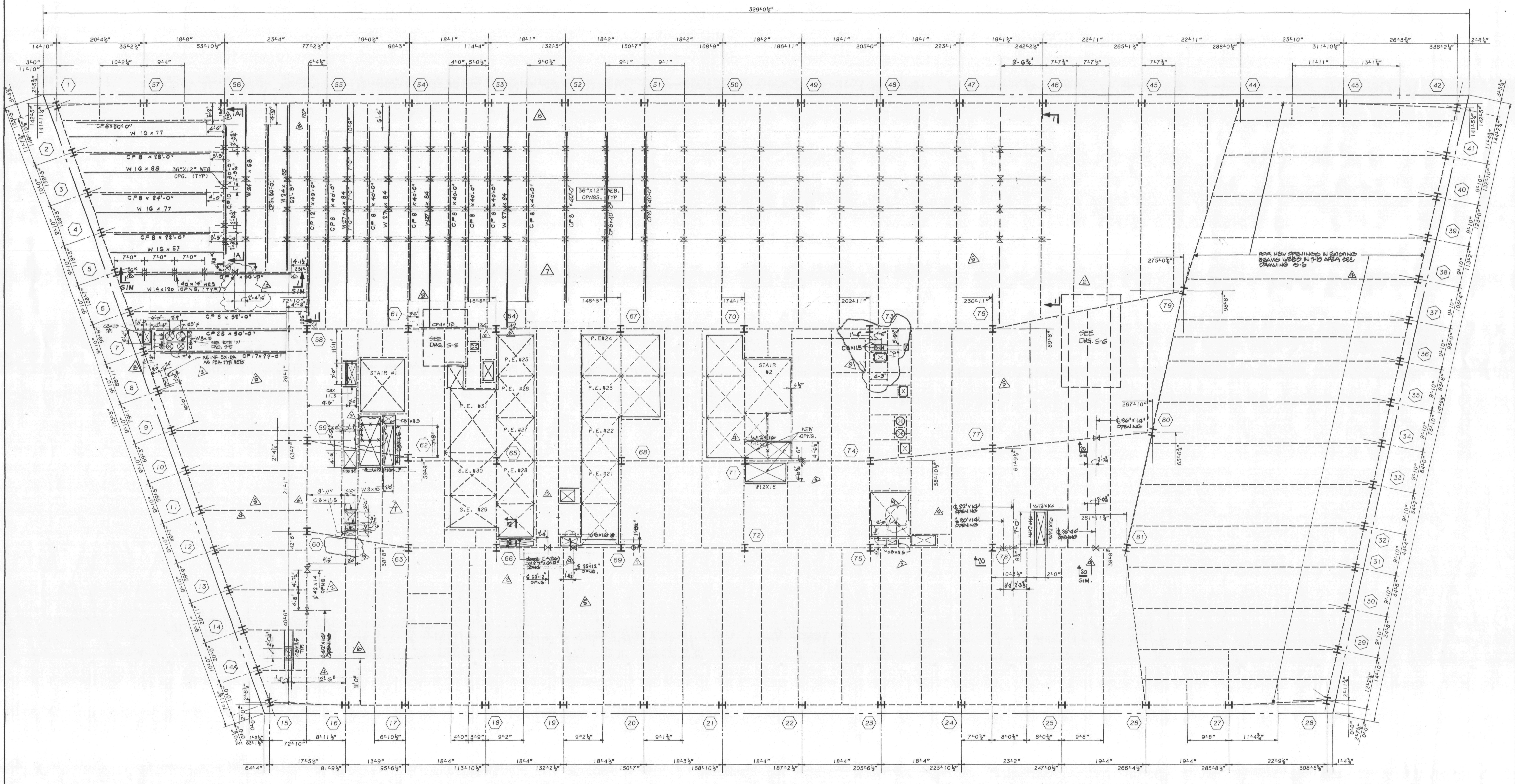

34TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. ⟨...N⟩ INDICATES NEW POST OR COLUMN.
10. —⧖— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS — --- INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
12. △C INDICATES TYPE OF REINFORCED EXIST. CONNECTIONS, SEE TYP. DET. DWG S-33.

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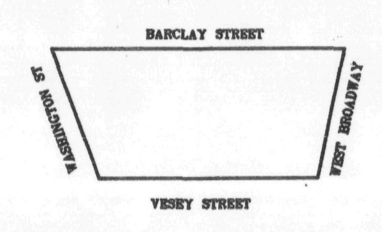

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10		REVISED AS CIRCLED
9	8/15/89	REVISED AS CIRCLED
8	8-10-89	ISSUED FOR FIELD SKETCH
7	5-22-89	REVISED AS CIRCLED
6	4-6-89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REV. AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER / THE CANTOR/SEINUK GROUP

34 TH FLOOR
FRAMING PLAN

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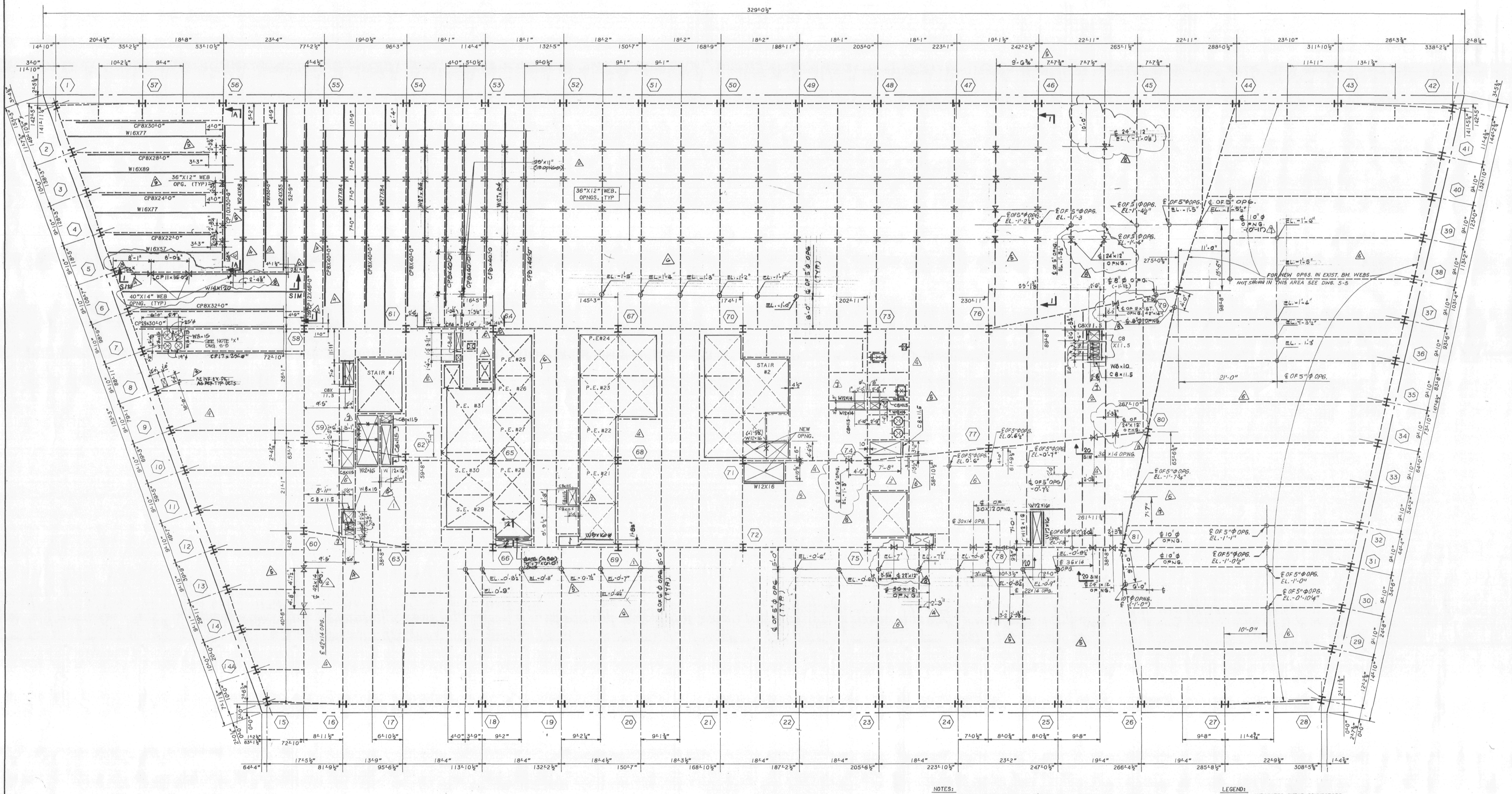

35TH FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ALL PLUMBING ¢ EL'S TO BE VERIFIED WITH PLUMBING SHOP DWGS. BEFORE PROCEEDING WITH WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS ±--- FROM TOP OF STEEL BEAM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
12. △ INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL SEE DETAIL ON DWG. S-33

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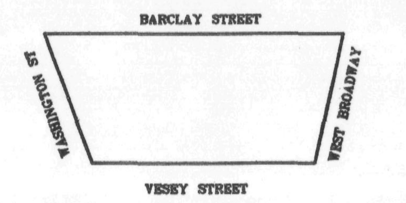

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REV. AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

35TH FLOOR FRAMING PLAN

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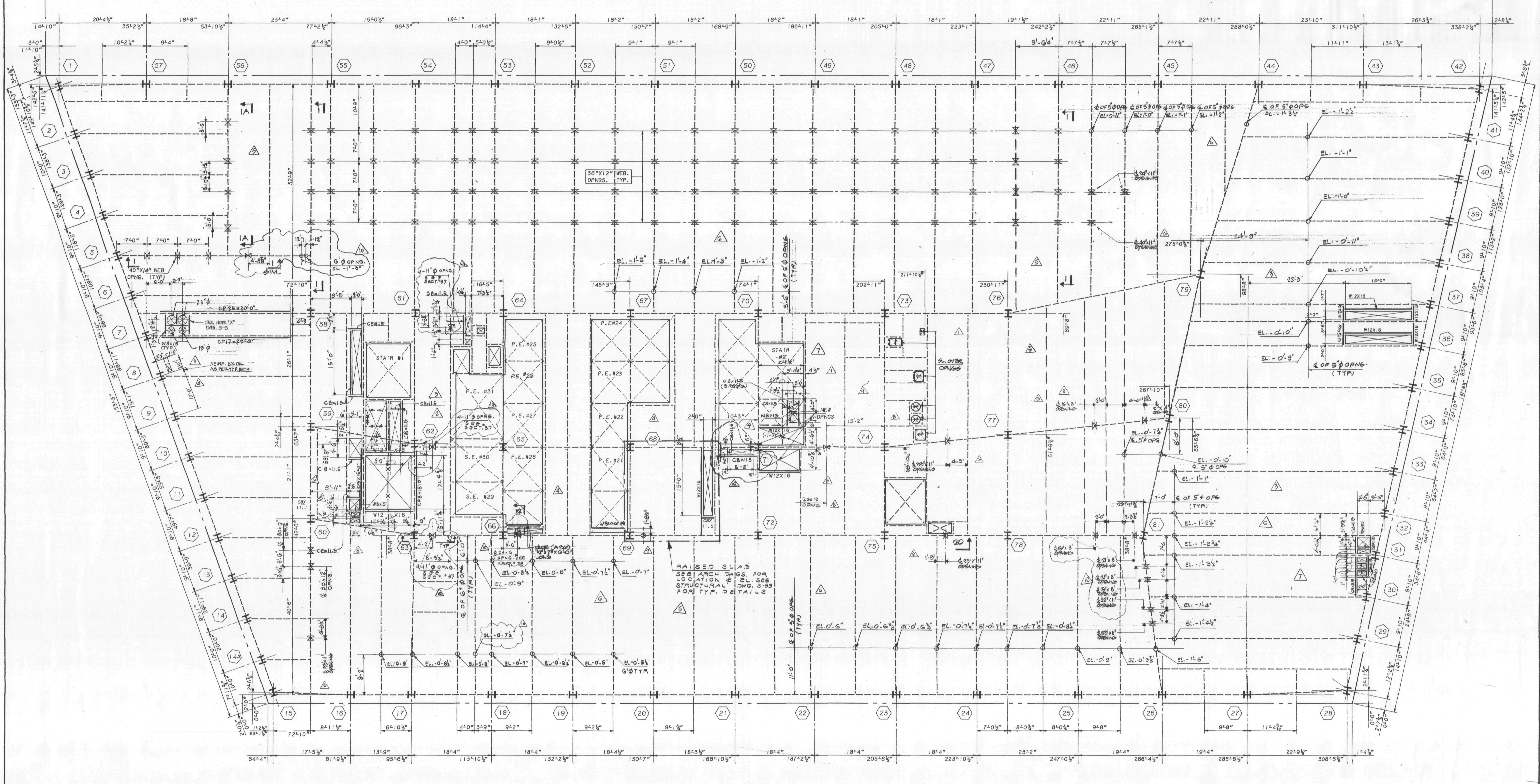

36TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ALL PLUMBING ¢ EL'S TO BE VERIFIED WITH PLUMBING SHOP DWGS. BEFORE PROCEEDING WITH WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. [X] INDICATES EXISTING SLAB OPENING.
8. [X] INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. —X— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS -··· INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33

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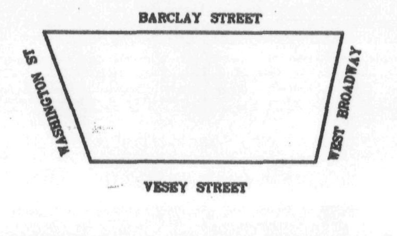

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10	7-3-90	ISSUED FOR BULLETIN #103
9	8/24/89	ISSUED FOR FIELD SKETCH
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEVATION
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10/31/88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS.

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SENUK GROUP

36TH FLOOR FRAMING PLAN

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Sheet No. S-11

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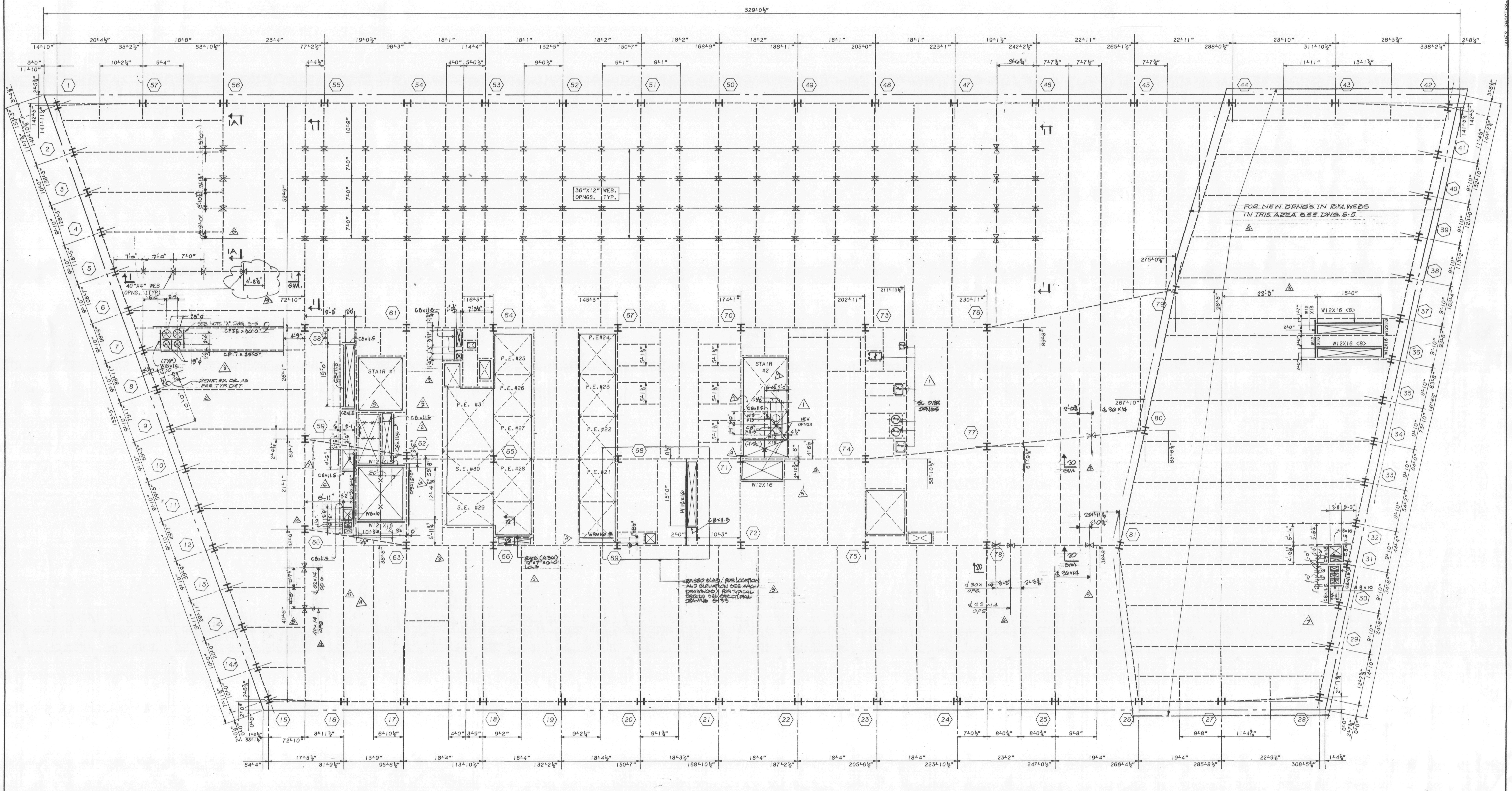

37TH FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟵⟶ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. —⨯— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS -.... FROM TOP OF BEAM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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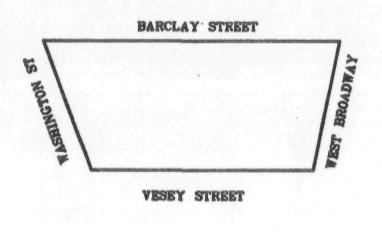

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9		REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REVISED AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10/31/88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

37TH FLOOR FRAMING PLAN

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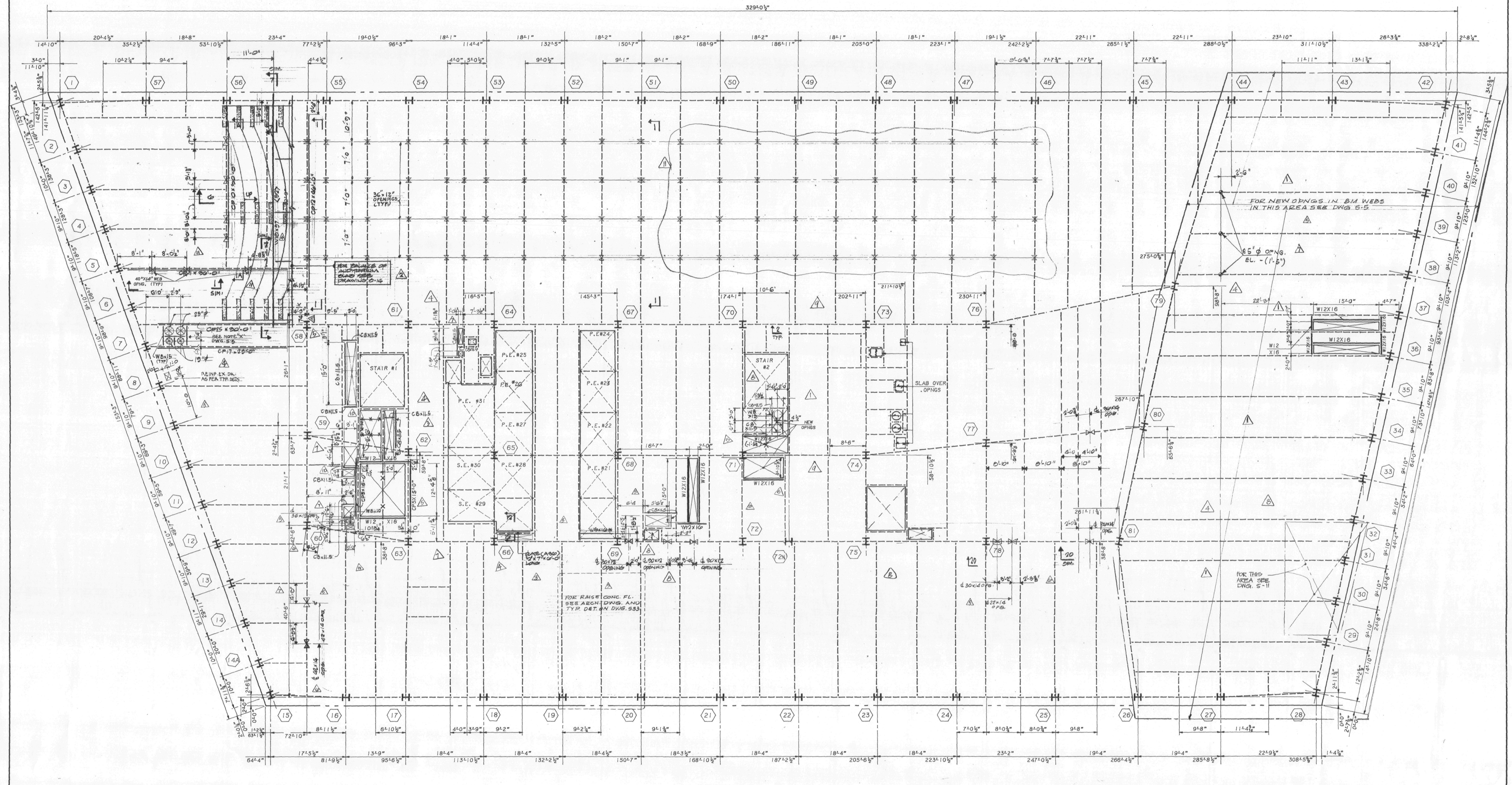

38TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN. TO BE W8 × 28 U.O.N.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS --- INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. (C) INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL. SEE DETAIL ON DWG. S-33

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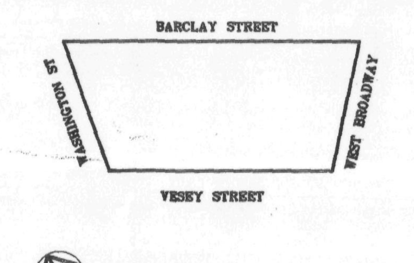

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11	11/30/89	BULLETIN #15
10	8/15/89	REVISED AS CIRCLED
9	6/12/89	REVISED AS CIRCLED
8	5/22/89	REVISED AS CIRCLED
7	4/6/89	REVISED AS CIRCLED
6	3/1/89	REVISED AS CIRCLED
5	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
4	12/22/88	REV. AS CIRCLED
3	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
2	11/21/88	REVISION TO 11/7/88 SUBMISSION
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10/31/88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

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38TH FLOOR FRAMING PLAN

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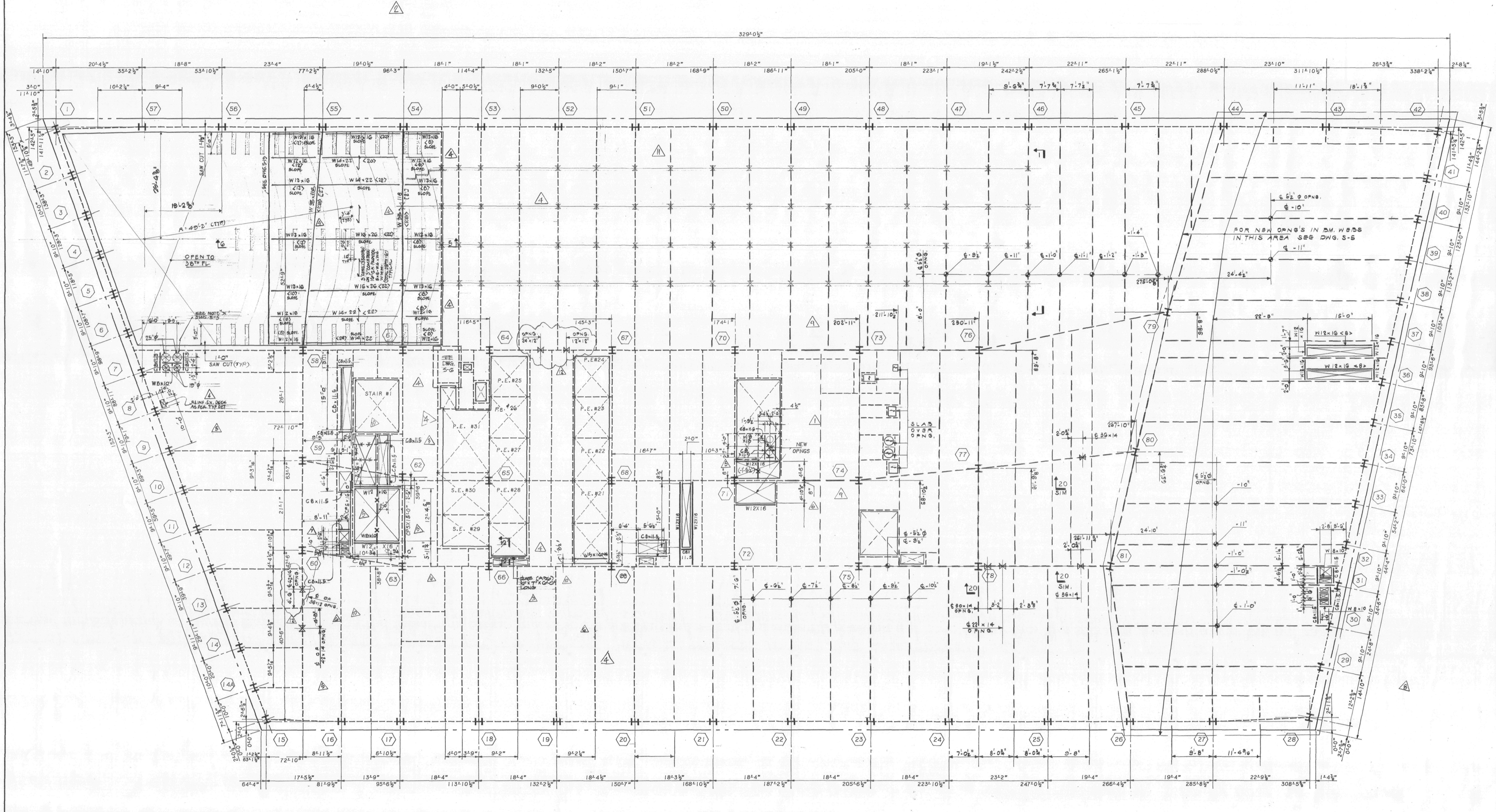

39TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. CONTRACTOR TO SUBMIT DETAIL FOR SUPPORT OF EXIST. PIPES IN OPEN AREA FOR ENGINEERS REVIEW AND APPROVAL.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. ⟨..N⟩ INDICATES NEW POST OR COLUMN. TO BE W8×20 U.O.N.
10. —⧖— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33

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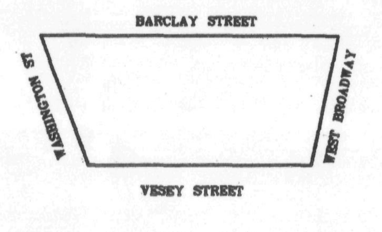

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
12	4/24/90	ISSUED FOR BULLETIN #79
11	11/30/89	BULLETIN #15
10	8/15/89	REVISED AS CIRCLED
9	6/12/89	REVISED AS CIRCLED
8	5/22/89	REVISED AS CIRCLED
7	4/6/89	REVISED AS CIRCLED
6	3/1/89	REVISED AS CIRCLED
5	1/20/89	REV. AS CIRCLED
	1/3/89	ISSUED FOR CONST.
4	12/22/88	REV. AS CIRCLED
3	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
2	11/21/88	REVISION TO 11/7/88 SUBMISSION
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10-31-88	ISSUED TO B.D. FOR APPROVAL OF BASE BLDG MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

39TH FLOOR FRAMING PLAN

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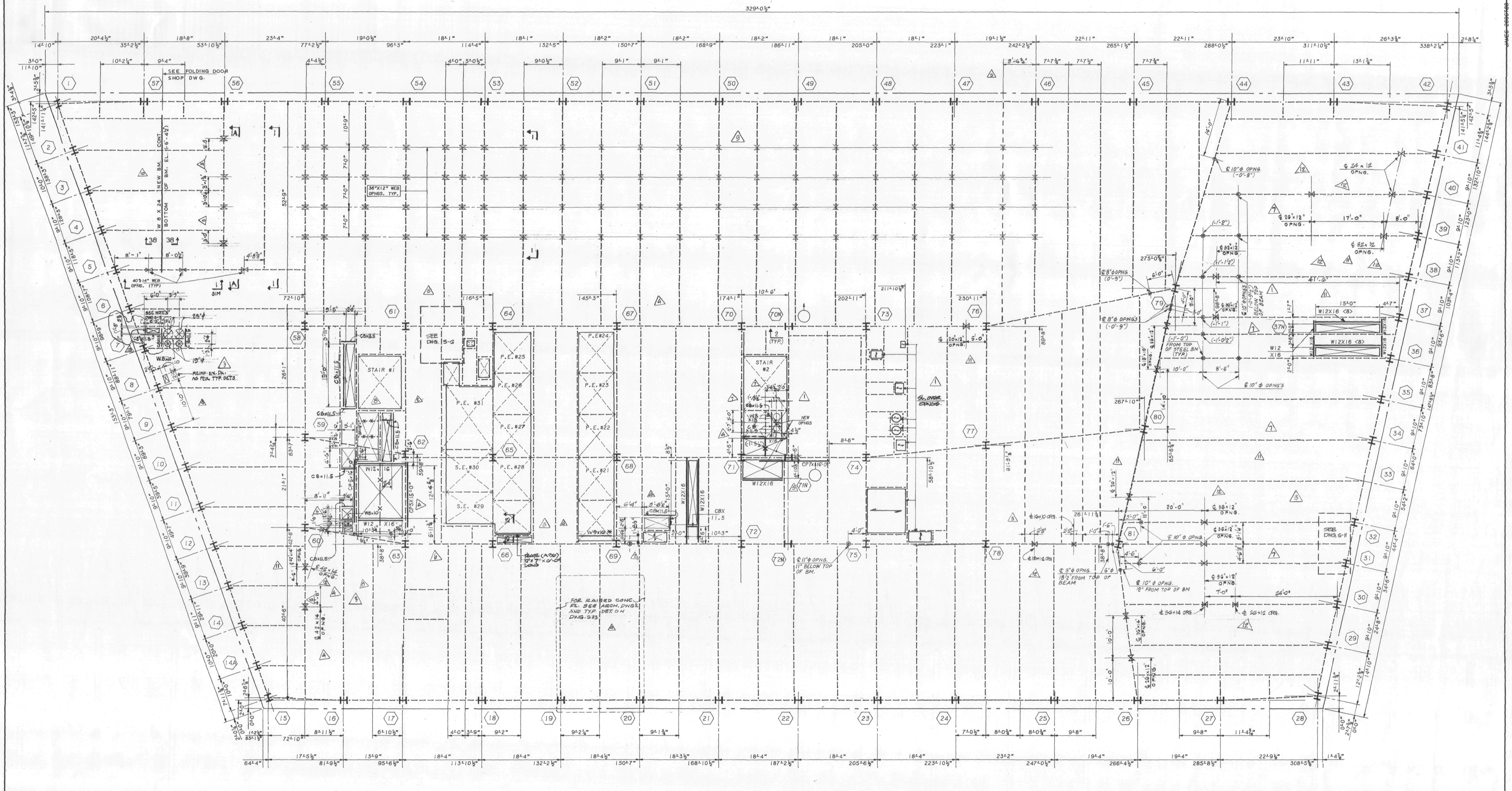

40TH FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN. TO BE W8x28 U.O.N.
10. INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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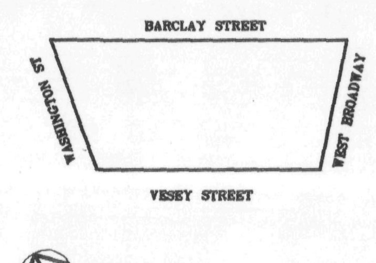

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
13	7/3/90	ISSUED FOR BULLETIN #103
12	5/10/90	ISSUED FOR BULLETIN #84
11	4/24/90	ISSUED FOR BULLETIN #79
10	3/30/90	REVISED AS CIRCLED
9	11/30/89	BULLETIN #15
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10-31-88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

40TH FLOOR FRAMING PLAN

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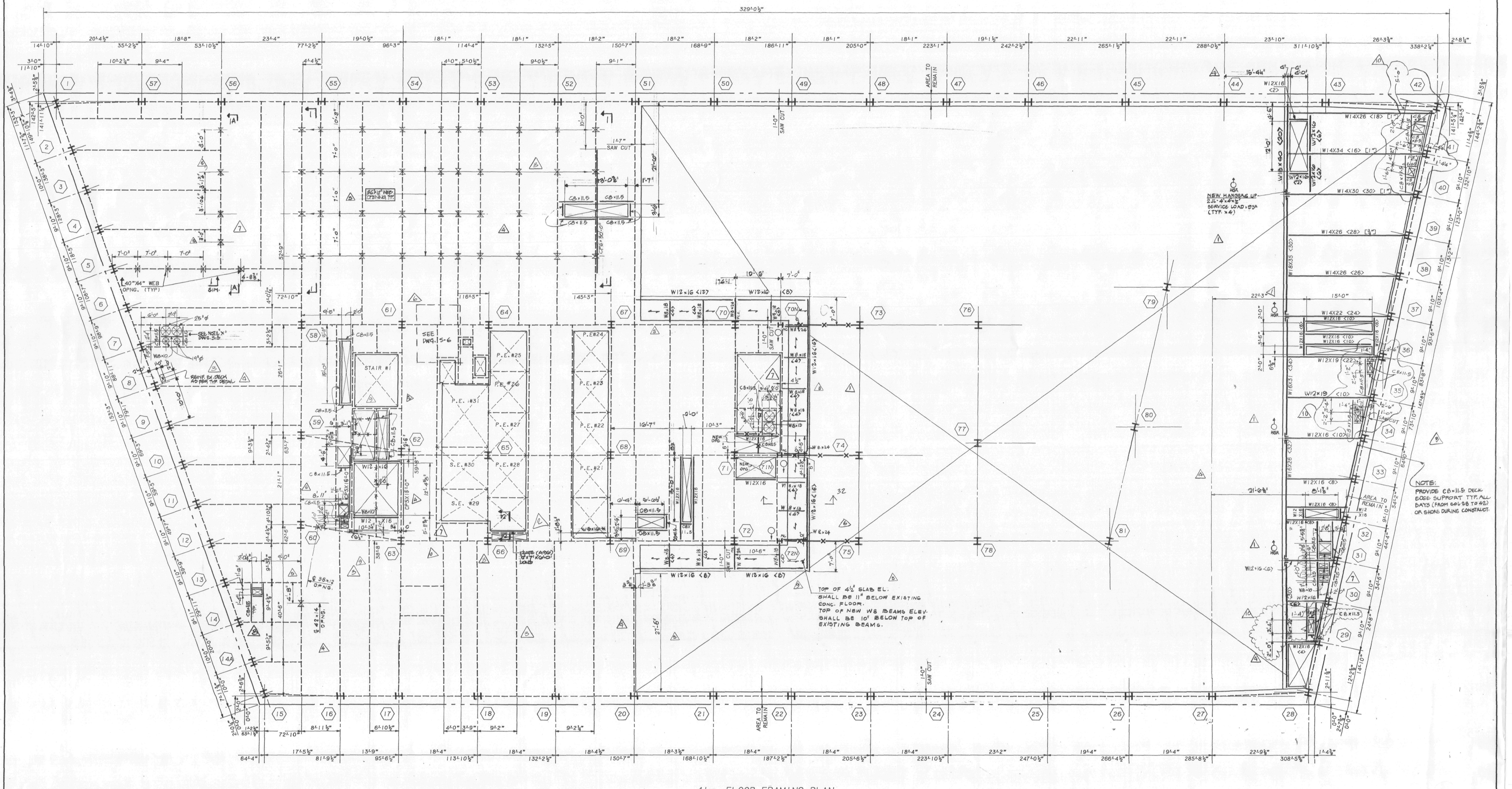
Project No.:
Date:
Scale:
Sheet No. S-15

80657 S-15



41st FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. CONTRACTOR TO SUBMIT DETAIL FOR SUPPORT OF EXIST. PIPES IN OPEN AREA FOR ENGINEERS REVIEW AND APPROVAL.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMNS TO BE W8×28 U.O.N.
10. —⊠— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. M.C. INDICATES MOMENT CONNECTION (FULL CAPACITY).

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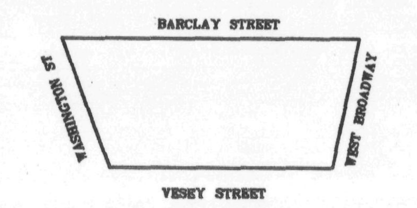

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10	1/26/90	ISSUED FOR BULLETIN NO. 45
9	8/15/89	REVISED AS CIRCLED
8	6/10/89	ISSUED FOR FIELD SKETCH
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11-7-88	REVISION TO 10/31/88 SUBMISSION
	10-31-88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

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41st FLOOR FRAMING PLAN

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Project No.:
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Scale:
Sheet No. S-16

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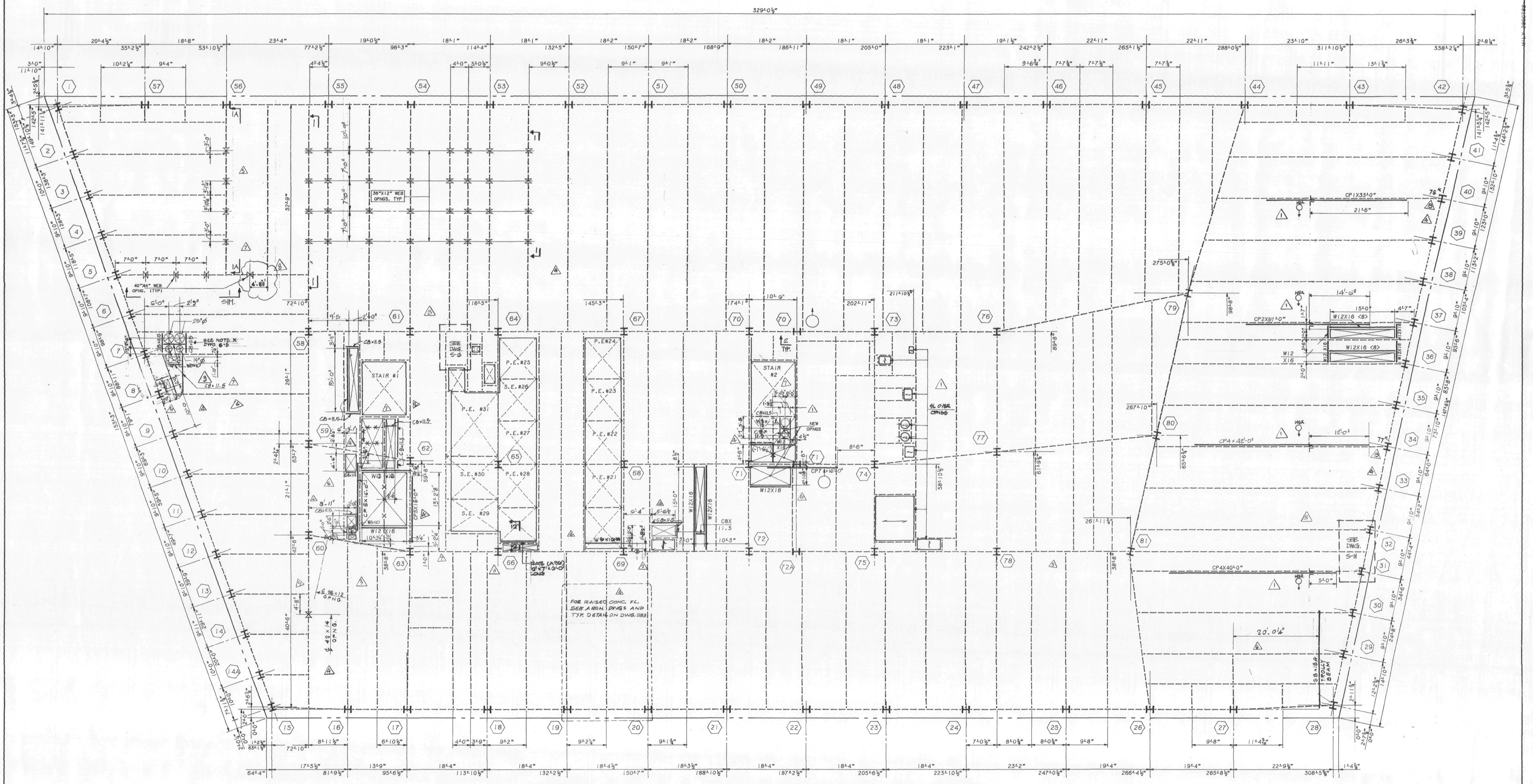

42ND FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ------ INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMNS ~~TO BE~~ W8×28 U.O.N.
10. —☆— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS-.... FROM TOP OF BEAM ⚠7
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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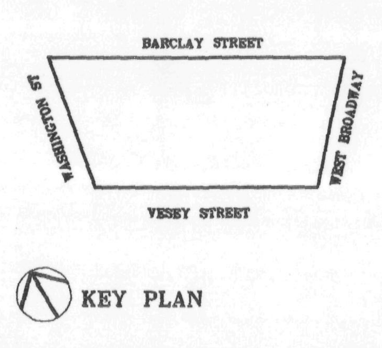

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/9/88	REVISION TO 10/31/88 SUBMISSION
	OCT. 31. 88	ISSUED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
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42ND FLOOR FRAMING PLAN

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Scale:
Sheet No. S-17

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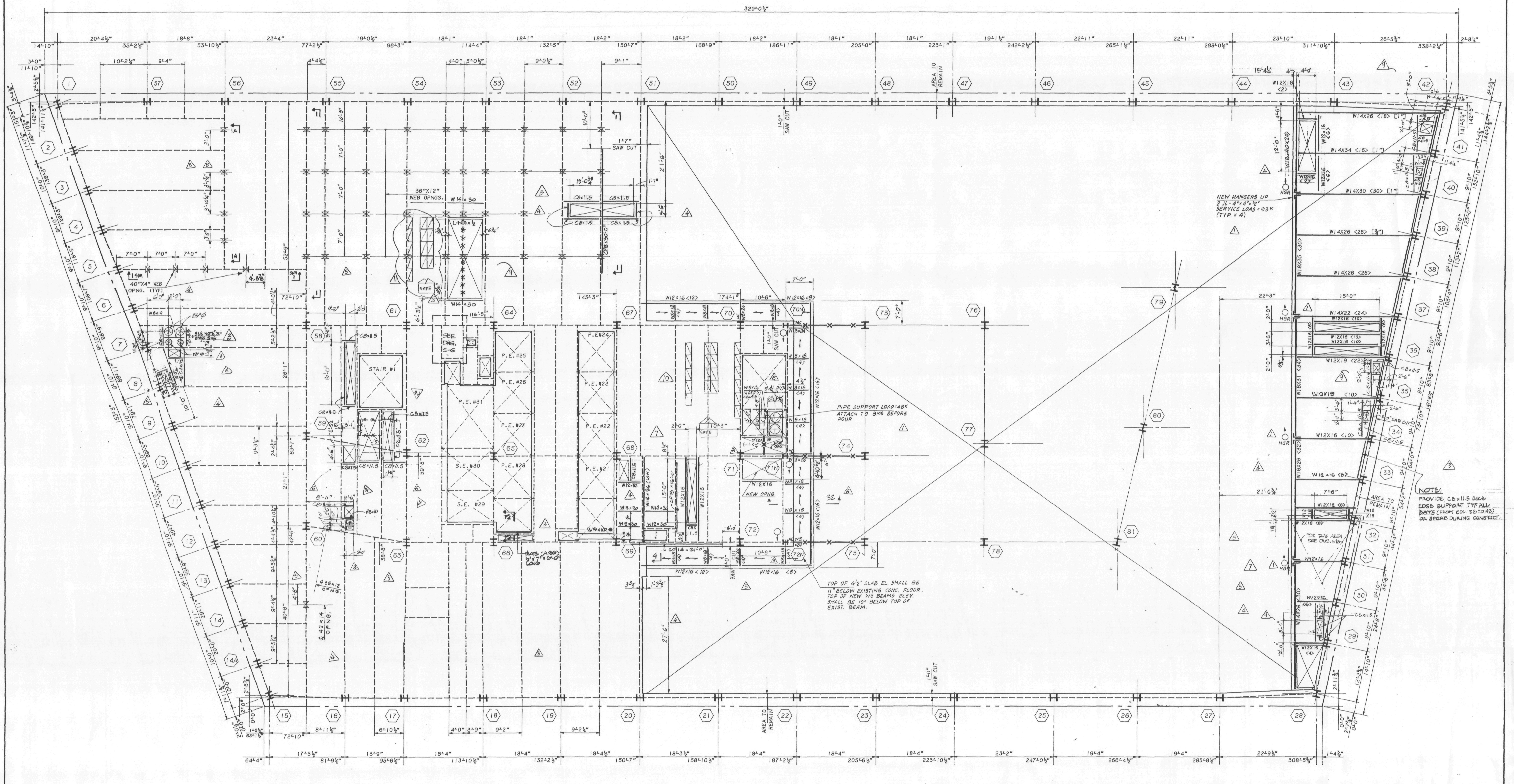

43RD FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. CONTRACTOR TO SUBMIT DETAIL FOR SUPPORT OF EXIST. PIPES IN OPEN AREA FOR ENGINEERS REVIEW AND APPROVAL.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING & BALCONIES (5)
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMNS TO BE W8x28 U.O.N.
10. —⧗— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. * INDICATES CO-ORDINATE LOCATION OF BEAM WITH ELEVATOR SHOP DWGS.

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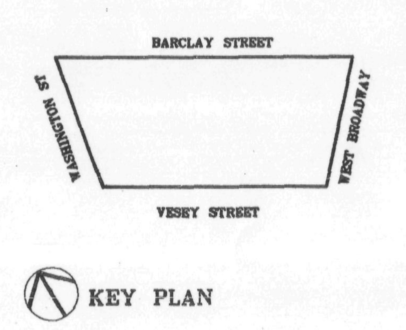

NOTES

LEGEND

No.	Date	Revision
11	7/22/94	REVISED AS NOTED
10	5/25/94	REVISED AS CIRCLED
9	2/26/90	ISSUED FOR BULLETIN NO. 45
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	NOV. 7, 88	REVISION TO 10/31/88 SUBMISSION
	OCT 31, 88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATION

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ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

43RD FLOOR FRAMING PLAN

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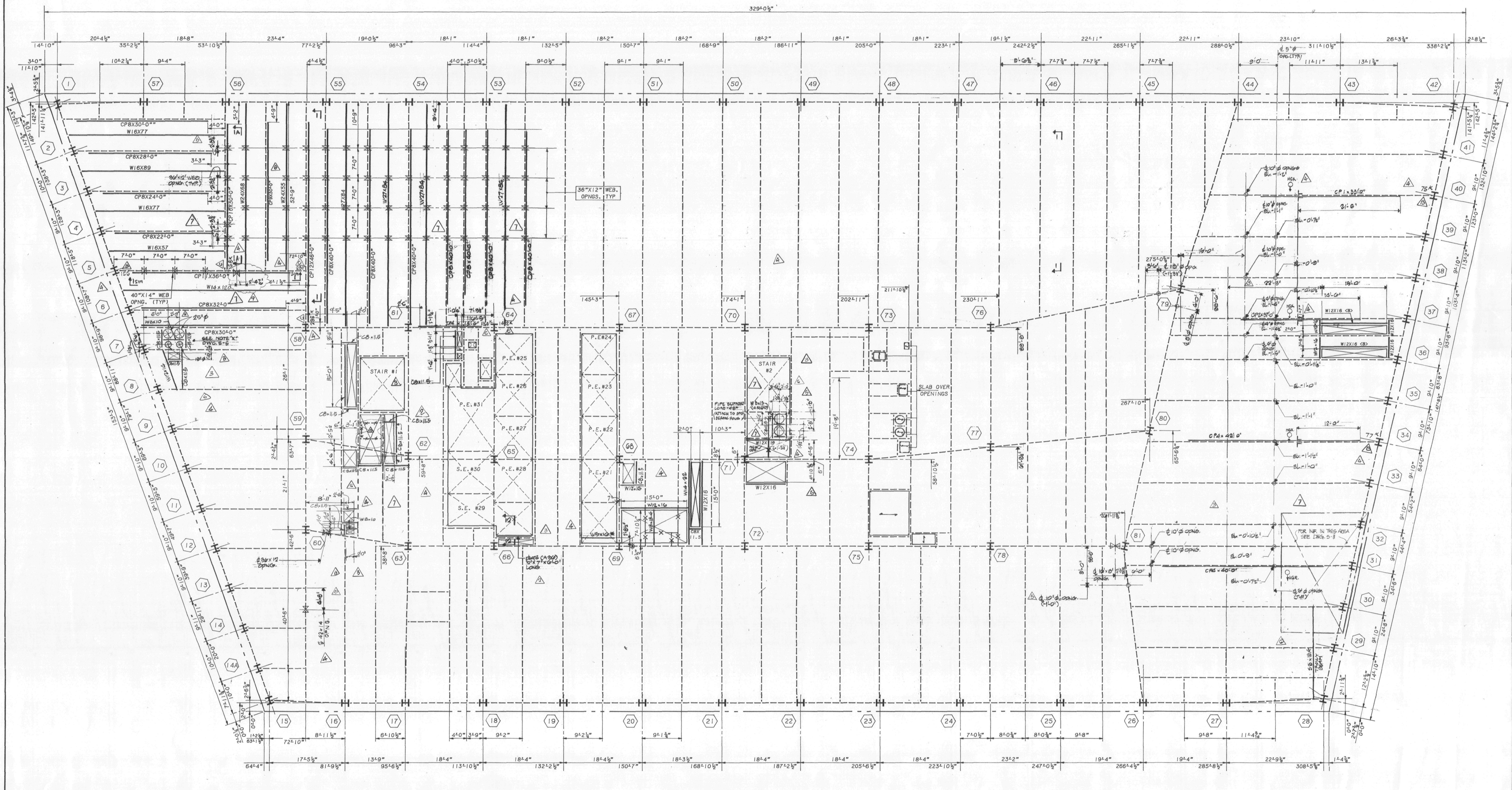

44TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ALL PLUMBING & EL'S TO BE VERIFIED WITH PLUMBING SHOP DWGS. BEFORE PROCEEDING WITH WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS ± FROM TOP OF STEEL BEAM
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. (A) INDICATES TYPE OF EXISTING CONNECTION REINF. DETAIL, SEE DETAIL ON DWG. S-33

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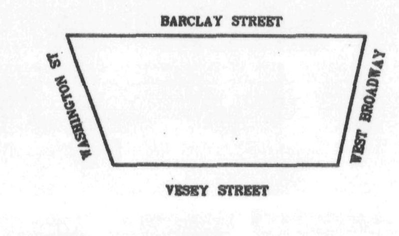

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9	10/10/89	REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REVISED AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	NOV. 7, 88	REVISION TO 10/31/88 SUBMISSION
	OCT. 31, 88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATION

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

44TH FLOOR FRAMING PLAN

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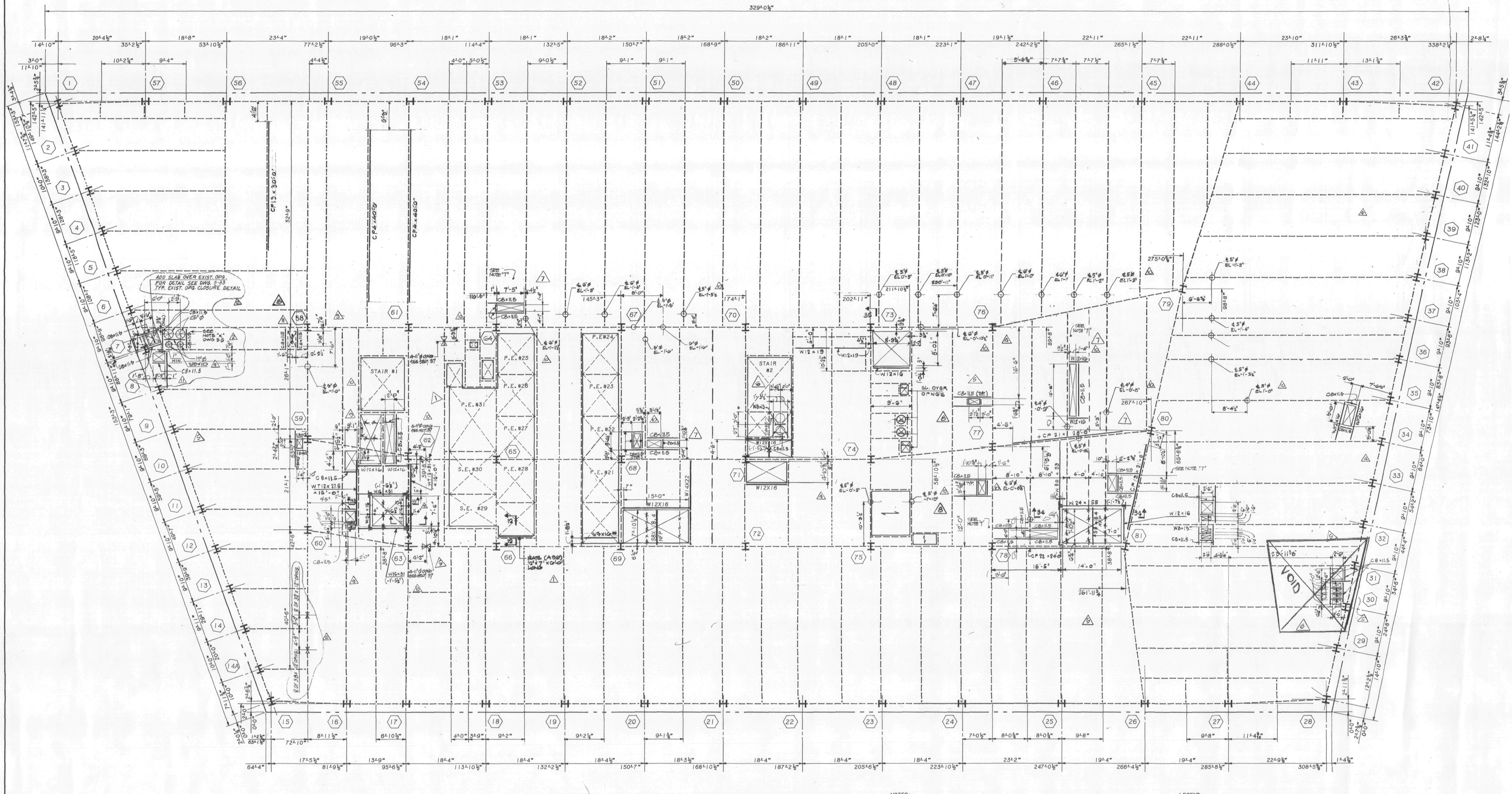
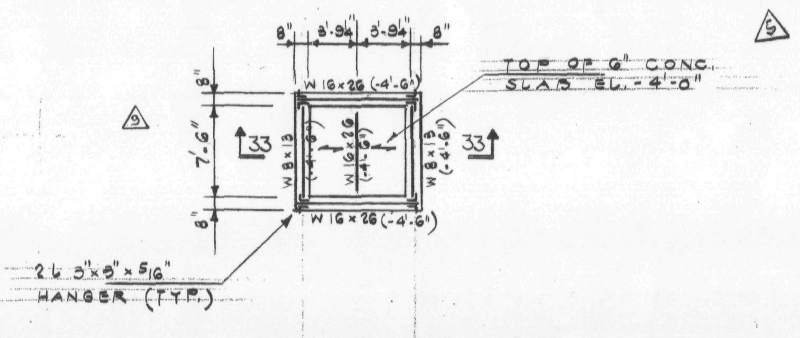
Sheet No. S-19

880S7/202 S-19



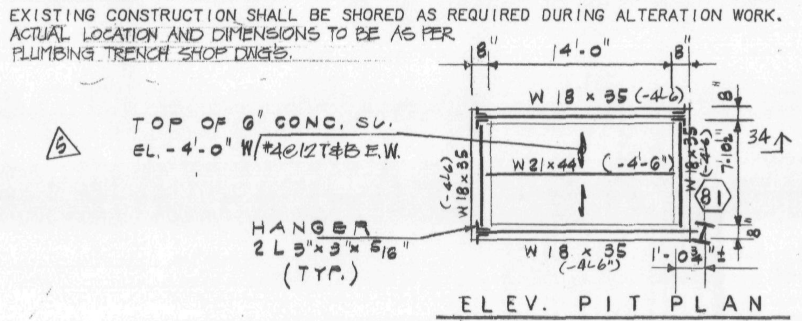
45TH FLOOR FRAMING PLAN



PLAN OF ELEV. PIT

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ACTUAL LOCATION AND DIMENSIONS TO BE AS PER PLUMBING TRENCH SHOP DWGS.



ELEV. PIT PLAN

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. (arrow) INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. (symbol) INDICATES EXISTING SLAB OPENING.
8. (symbol) INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. —X— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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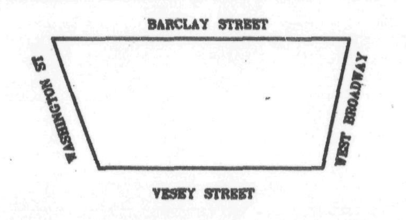

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
12		
11	1/26/90	ISSUED FOR BULLETIN NO. 45
10	10/ /89	REVISED AS CIRCLED
9	8/15/89	REVISED AS CIRCLED
8	8/10/89	ISSUED FOR FIELD SKETCH
7	6/12/89	REVISED AS CIRCLED
6	5/22/89	REVISED AS CIRCLED
5	4/6/89	REVISED AS CIRCLED
4	3/1/89	REVISED AS CIRCLED
3	1/26/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
2	12/22/88	REV. AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

45TH FLOOR FRAMING PLAN

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Project No.:
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Scale:
Sheet No. S-20

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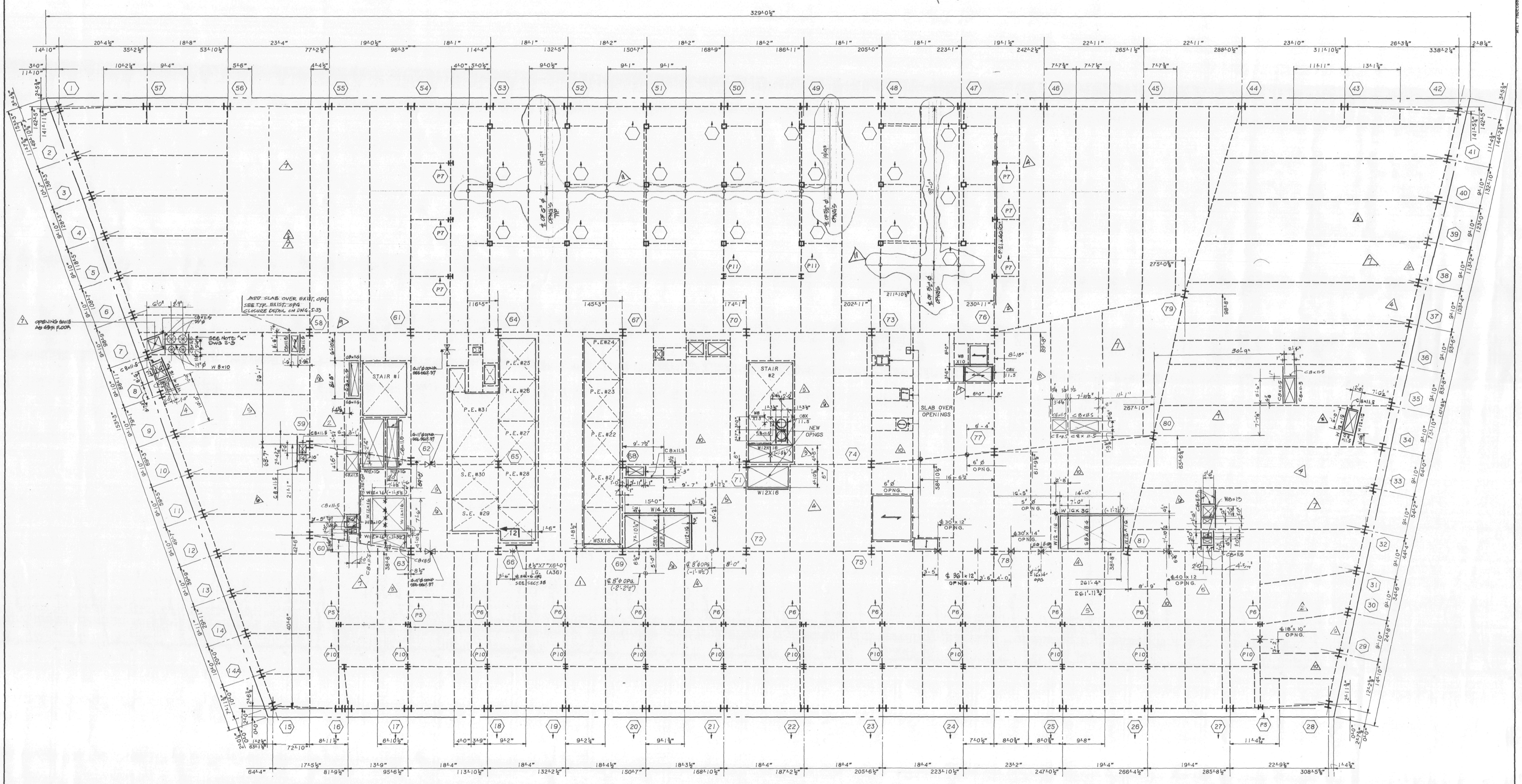

46TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWGS S-32, S-33
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. —⊠— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33

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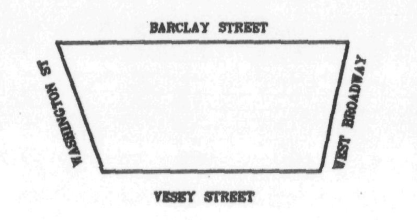

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11		
10	7-3-90	ISSUED FOR BULLENTIN #103
9	4-30-90	COORD FOR FLRS 46 & 47
8	2-23-90	ISSUED FOR BULLETIN NO. 65
7	1/26/90	ISSUED FOR BULLETIN NO 45
6	8/15/89	REVISED AS CIRCLED
5	4-6-89	REVISED AS CIRCLED
4	3-1-89	REVISED AS CIRCLED
3	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST
2	12/22/88	REV. AS CIRCLED
1	12/19/88	REV. AS CIRCLED FOR SHUTTLE ELEV.
	11/21/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

46TH FLOOR FRAMING PLAN

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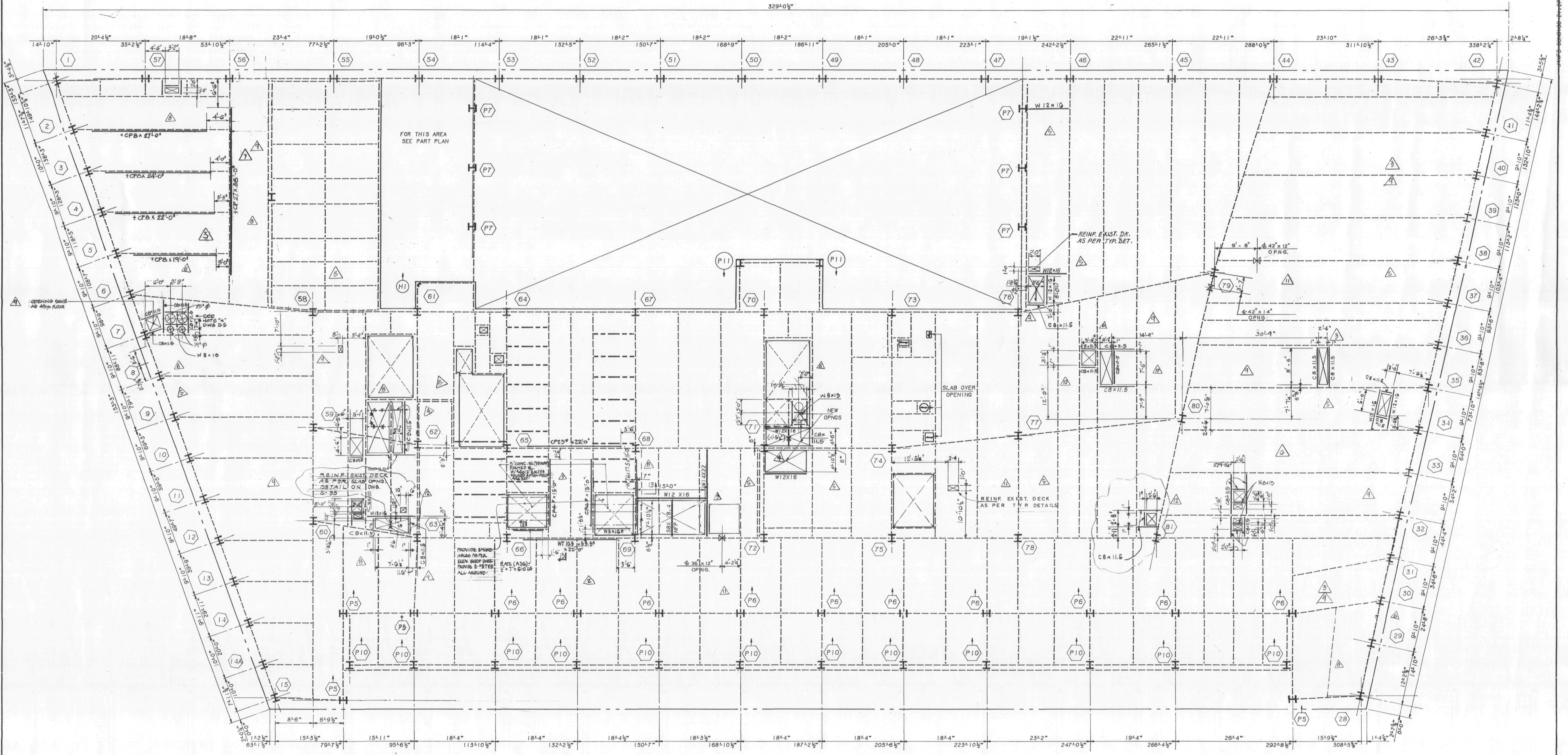
Project No.:
Date:
Scale:
Sheet No. S-21

#88057 / 201



47TH FLOOR FRAMING PLAN

NOTE:
FOR NOTES SEE DWG. S-21

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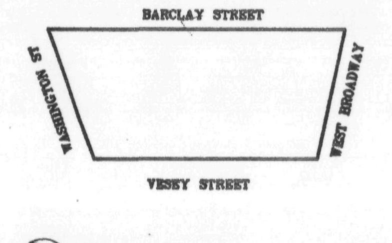

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
12	8-17-90	ISSUED FOR BULLETIN #116
11	7-3-90	ISSUED FOR BULLETIN #103
10	2-23-90	ISSUED FOR BULLETIN NO. 65
9	1-26-90	ISSUED FOR BULLETIN NO. 45
8	8-15-89	REVISED AS CIRCLED
7	5-26-89	REVISED AS CIRCLED
6	4-6-89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

47TH FLOOR FRAMING PLAN

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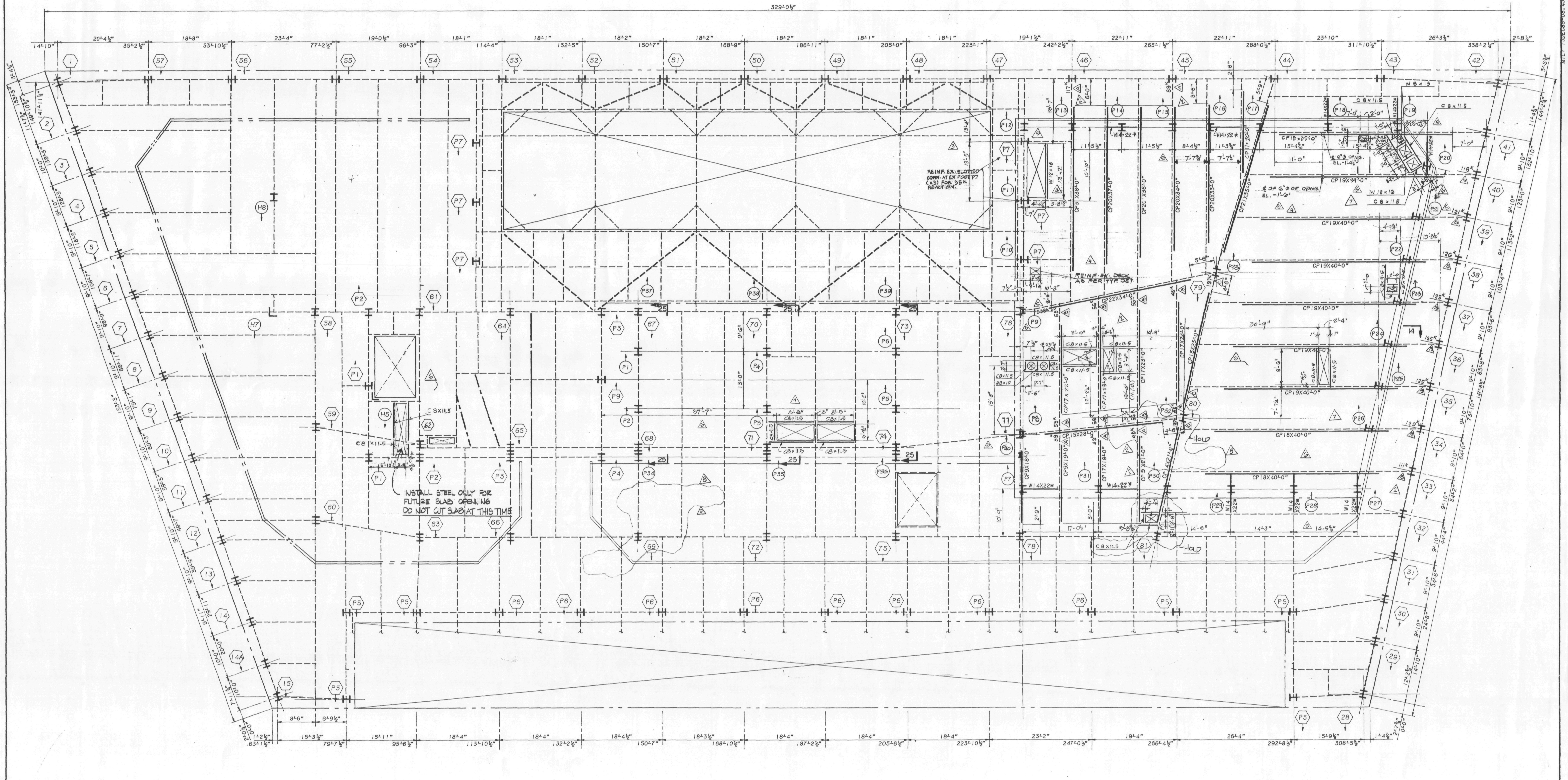
88057/102



ROOF FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWGS. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERFIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. --- INDICATES EXISTING STEEL FRAMING.
2. ○ INDICATES NEW POST GOING UP FROM THIS LEVEL.
3. C.P. INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
4. △ INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL. SEE DETAIL ON DWG. S-33

△2

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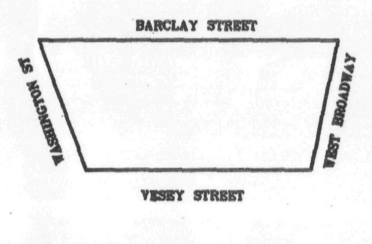

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9	9-18-90	ISSUED FOR BULLETIN #120
8	8-17-90	ISSUED FOR BULLETIN #110
7	7/3/90	ISSUED FOR BULLETIN #103
6	1/20/90	ISSUED FOR BULLETIN 45
5	8/15/89	REVISED AS CIRCLED
4	4/6/89	REVISED AS CIRCLED
3	3/1/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO PA FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

ROOF FRAMING PLAN

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Project No.:
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Sheet No. S-23

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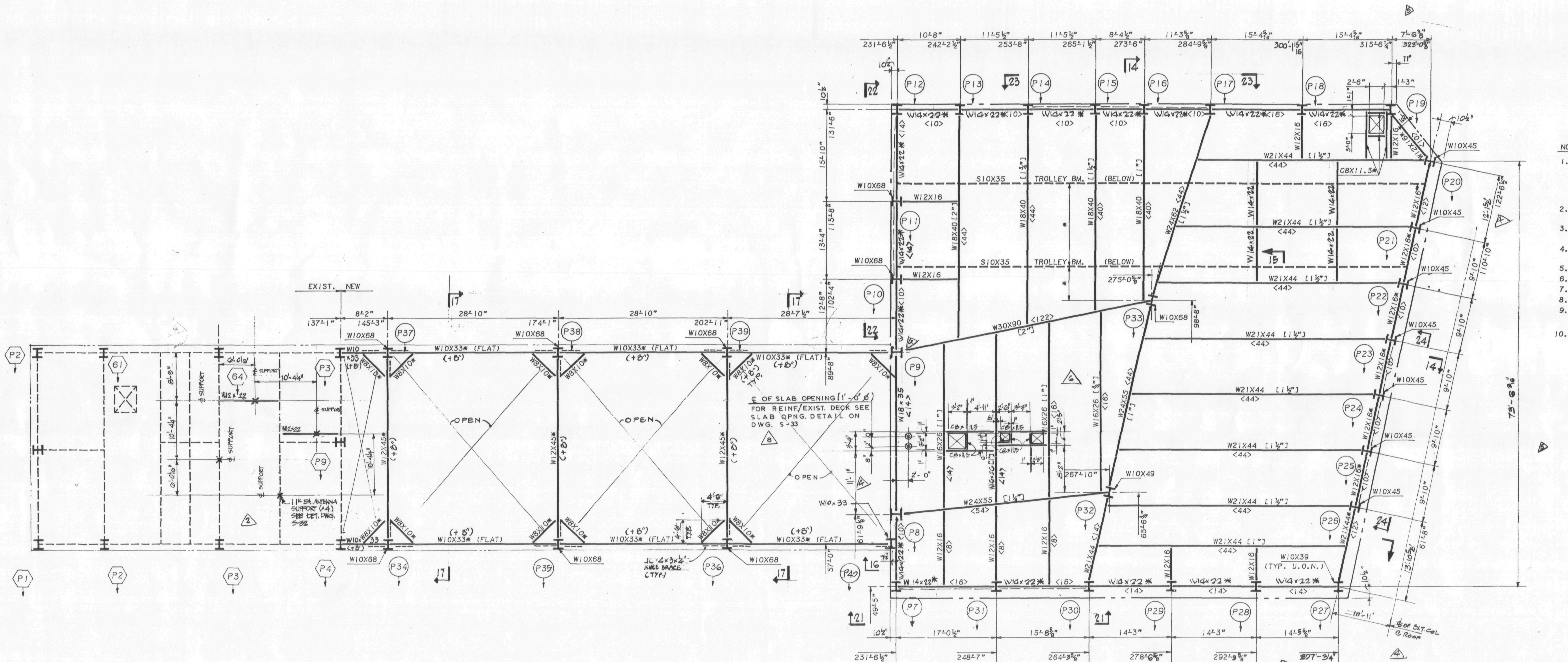
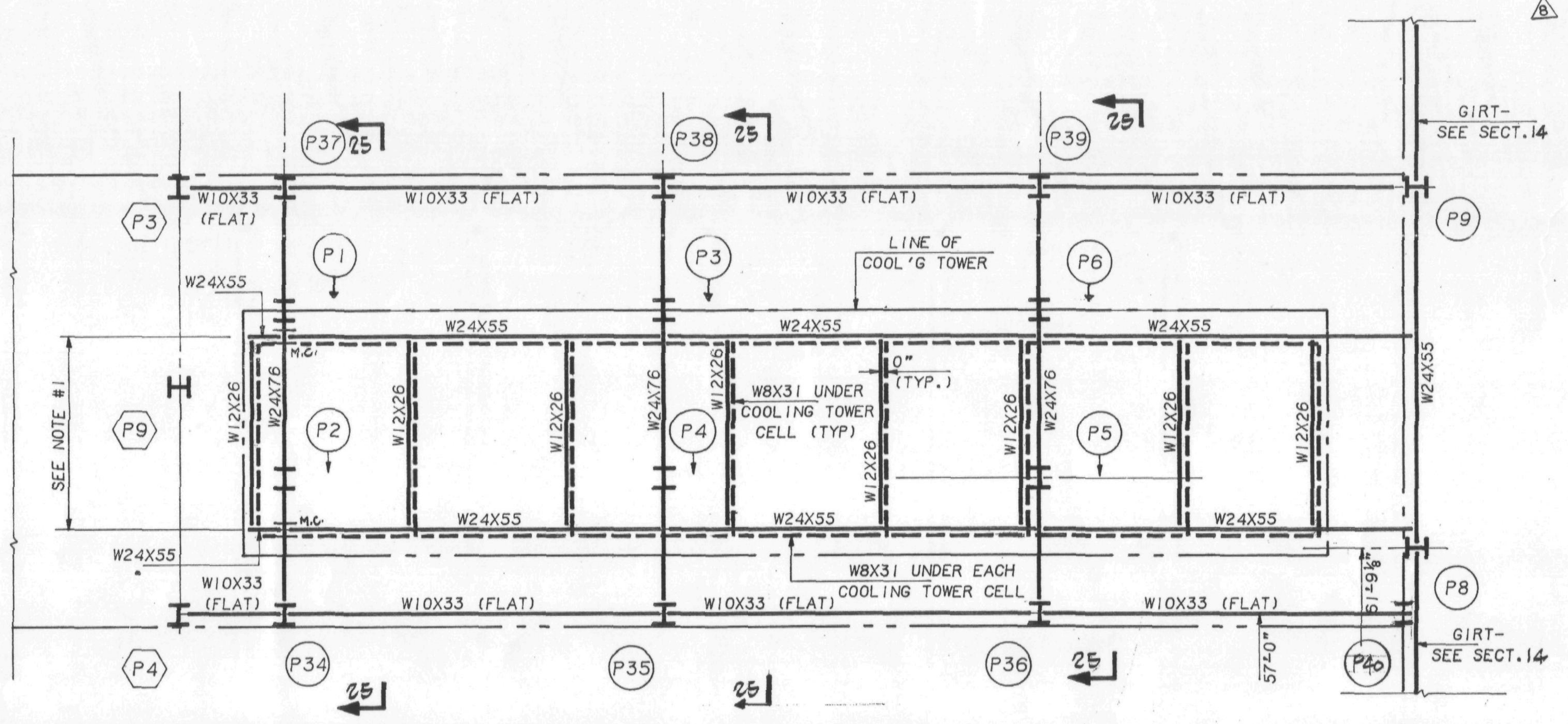


BULKHEAD FRAMING PLAN

NOTES:

1. SLAB SHALL BE 5½" (3"+2½") MIN. THICK STONE CONC. HAVING A COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS PLACED OVER 3" DEEP, 20 GAUGE COMPOSITE METAL DECK REINF. WITH 6X6-W2.4XW2.4 W.W.F. (U.O.N.) WHERE NOTED ON PLAN, TOP OF STRUCTUREAL SLAB SLOPES. H.P. EL. = 946'-6½" AND L.P. EL. = 946'-4" U.O.N. ON PLAN. SEE ARCH. DWGS. FOR SLOPE.
2. TOP OF STEEL SHALL BE AT EL. 945'-10½" UNLESS NOTED THUS (±...) INDICATING DISTANCE ABOVE OR BELOW EL. 946'-4".
3. ALL BEAMS SHALL BE ASTM 572, GRADE 50 STEEL U.O.N. THUS * INDICATING A36 STEEL.
4. FOR TYPICAL SUPERSTRUCTURE DETAILS SEE DWG. S-32 & S-33. FOR SUPERSTRUCTURE GENERAL NOTES SEE DWG. S-32.
5. <...> INDICATES SHEAR CONNECTORS.
6. [...] INDICATES CAMBER.
7. FLOOR SLAB SHALL BE SHORED AS PER MANUFACTURER'S REQUIREMENTS.
8. ALL POSTS SHALL BE W10X39 U.O.N. ON PLAN.
9. (P..) INDICATES NEW POST GOING DOWN.
10. * TROLLEY BEAM LOCATION TO BE COORDINATED WITH CHILLER SHOP DGWS.



COOLING TOWER SUPPORT FRAMING PLAN

NOTES:

1. LOCATION OF COOLING TOWER SUPPORT BEAMS TO BE COORDINATED WITH COOLING TOWER SHOP DRAWINGS.
2. FOR TOP OF STEEL EL. SEE MECHANICAL DWGS
3. ALL STEEL BEAMS SHALL BE ASTM A36 (fy=36) U.O.N. STEEL BEAMS THUS NOTED (*) IN PLAN SHALL BE ASTM A572 GRADE 50.
4. ALL BOLT HOLES REQUIRED FOR COOLING TOWER SHALL BE PROVIDED AS PER CERTIFIED COOLING TOWER SHOP DWGS.

69.95

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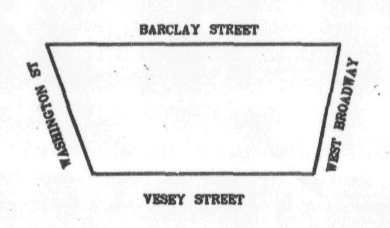

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
	6.9.95	AS BUILT-REF. ISSUE 11.5.93
	11.5.93	ISSUED FOR P. A. REVIEW
8	9-18-90	ISSUED FOR BULLETIN #120
7	8-17-90	ISSUED FOR BULLETIN #116
6	7-3-90	ISSUED FOR BULLETIN #103
5	8/15/89	REVISED AS CIRCLED
4	5.22.89	REVISED AS CIRCLED
3	4/6/89	REVISED AS CIRCLED
2	3/1/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

BULKHEAD FRAMING PLANS

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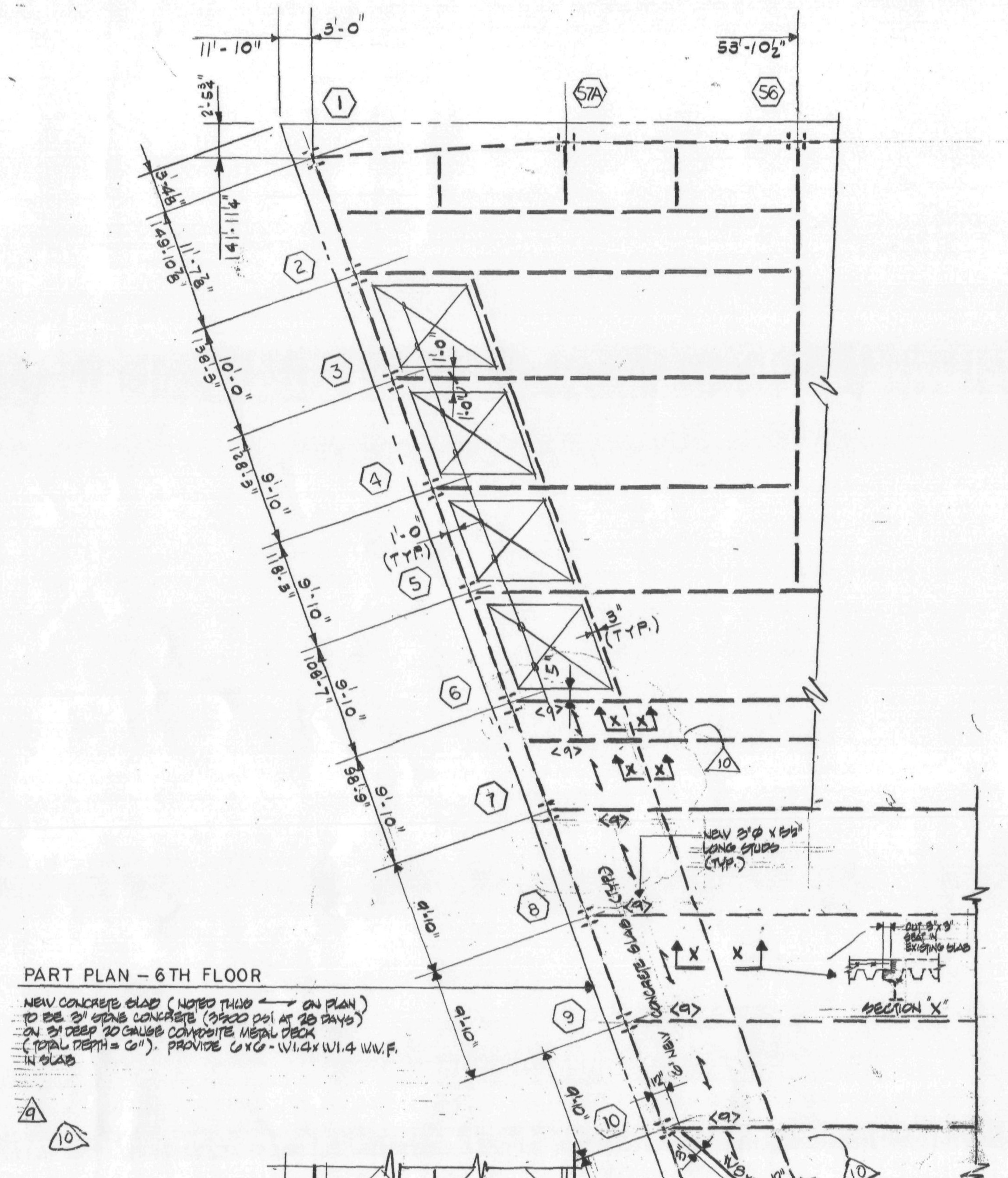
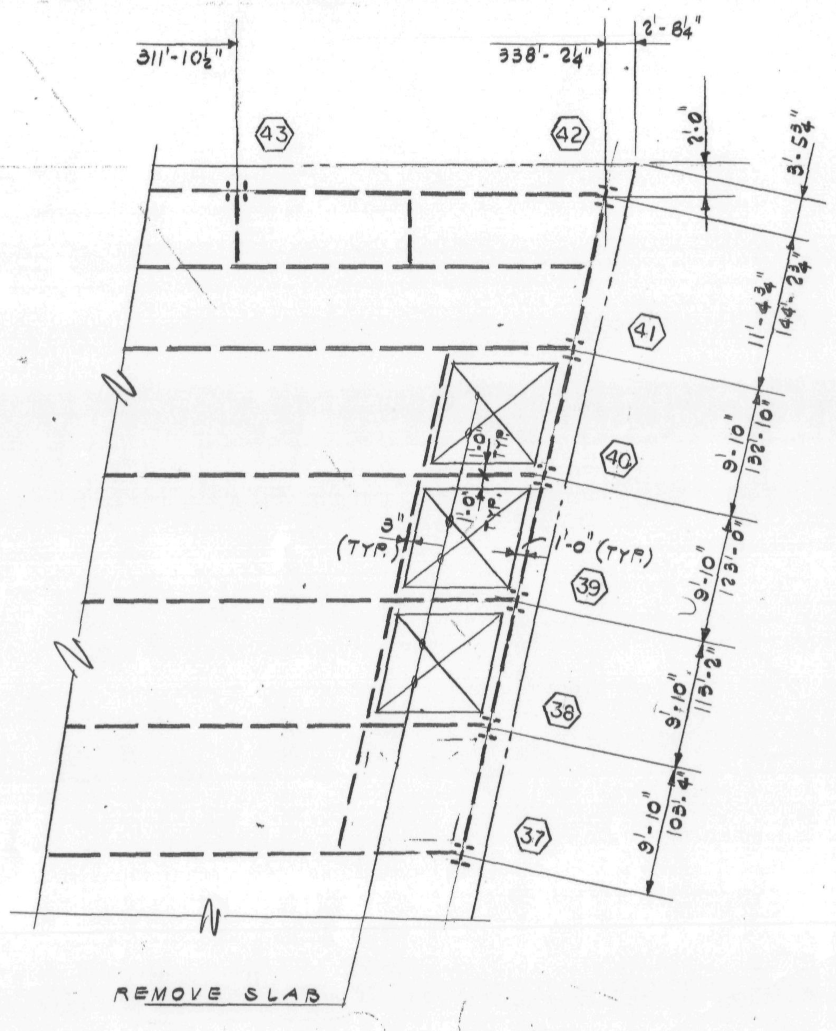
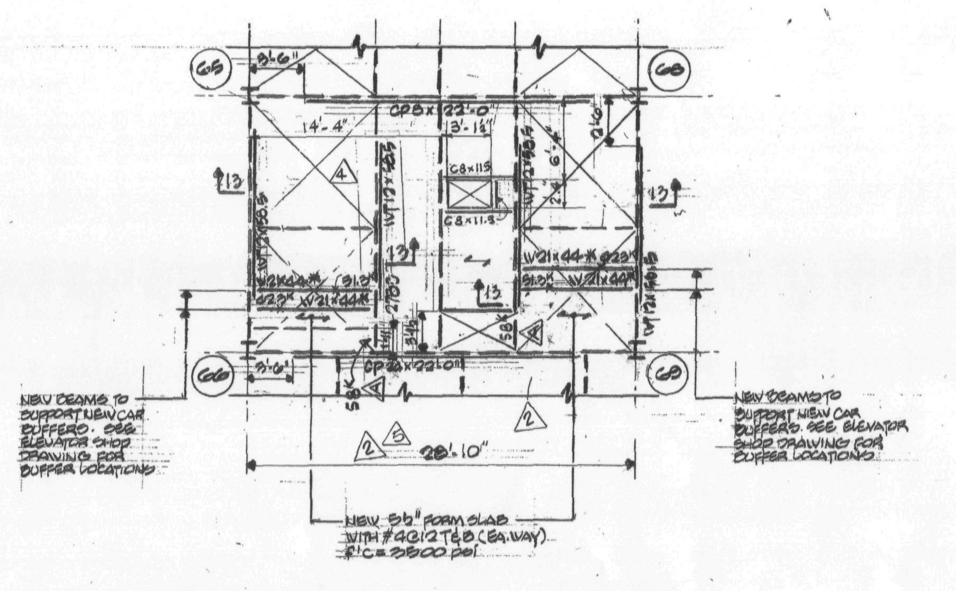


PART PLAN – 6TH FLOOR

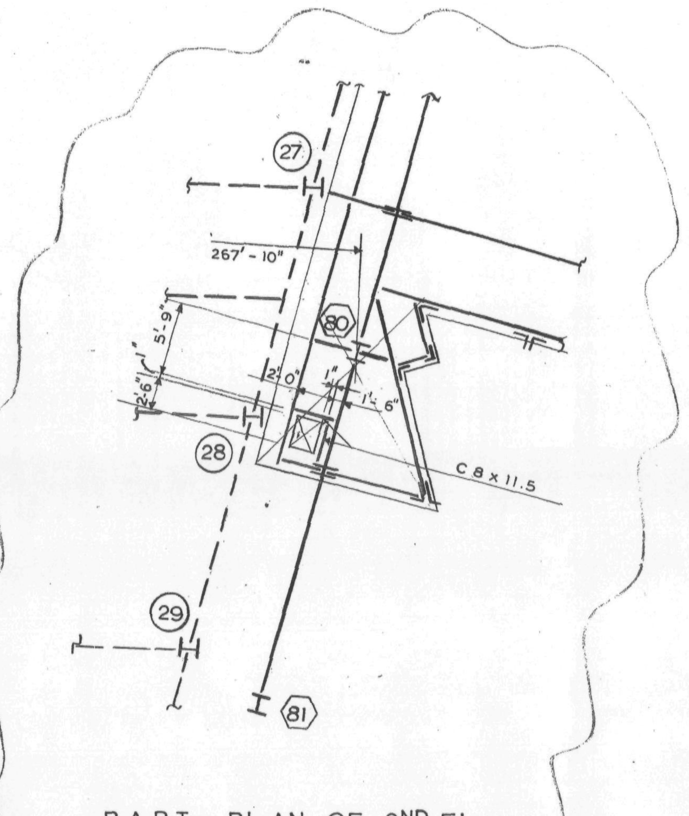


PART PLAN - 6TH FL.

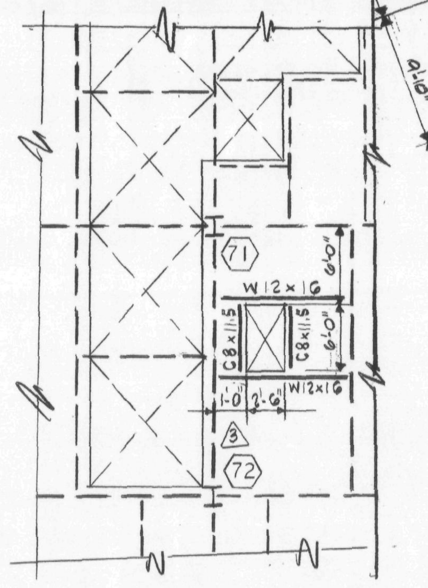


PART PLAN 27TH FLOOR

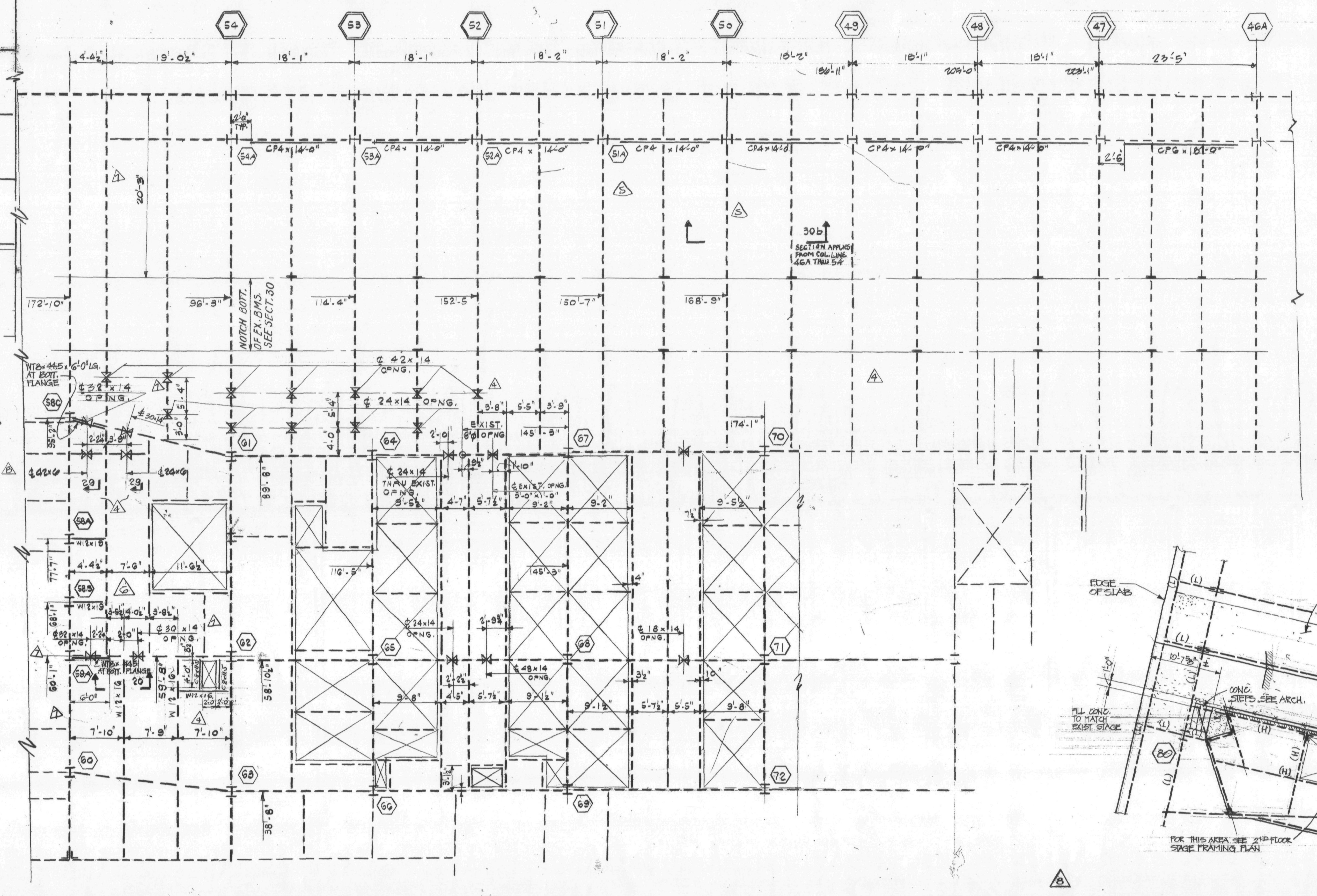
NOTE: △ INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL. SEE DETAIL ON DWG. S-33



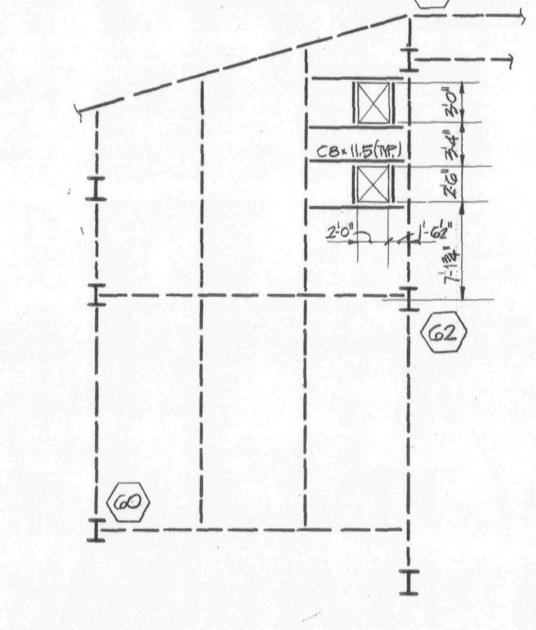
PART PLAN OF 2ND FL



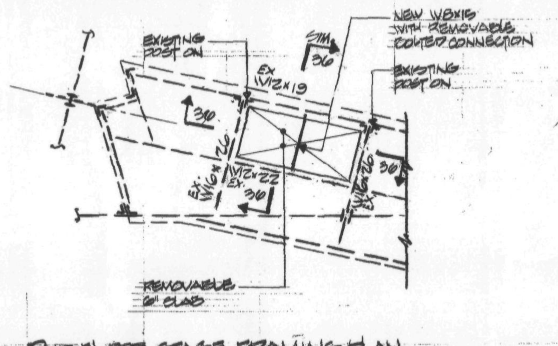
PART PLAN - 24TH - 29TH FL



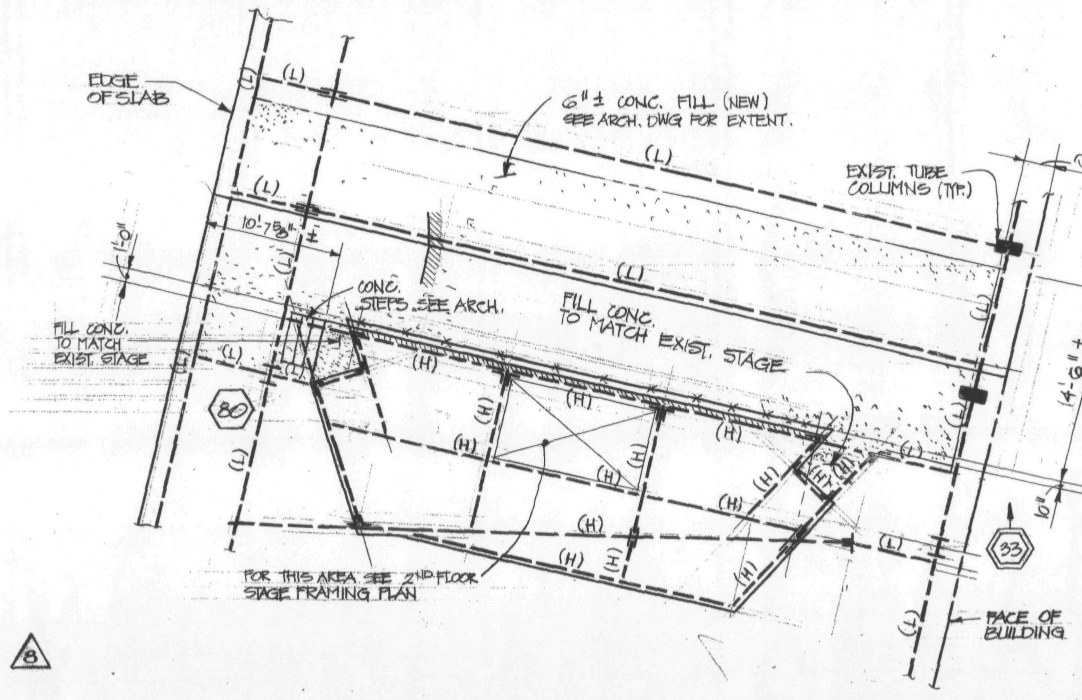
PART 6TH FL. FRAMING PLAN



PART PLAN 2ND FLOOR



2ND FLOOR STAGE FRAMING PLAN



PART 2ND FLOOR PLAN

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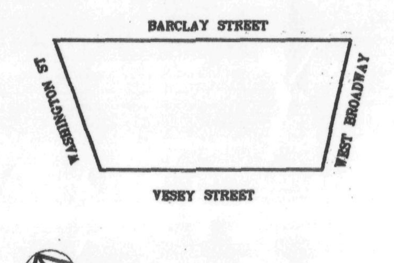

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11	6-7-90	ISSUED FOR BULLETIN No 94
10	12/8/89	ISSUED BULLETIN No.
9	11/22/89	ISSUED BULLETIN NO. 12
8	10/9/89	REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	6-12-89	REVISED AS CIRCLED
5	5-22-89	REVISED AS CIRCLED
4	4-6-89	REVISED AS CIRCLED
	4-4-89	ISSUED TO CON EDISON FOR APPROVAL
3	3/1/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	12/19/88	ISSUED TO P.A.

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

PART PLANS

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Project No.:
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Sheet No. S-25

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COL. NO.	1		2		3		4		5		6		7		8	
FLOOR	E	N	E	N	E	N	E	N	E	N	E	N	E	N	E	N
MAIN ROOF																
47TH FL. 14'-10"	W14 X90	38	W14 X90	31	W14 X90	24	W14 X90	25	W14 X90	62	W14 X109	40	W14 X109	32	W14 X109	30
46TH FL. 12'-9"	X109	78	X109	74	X109	62	X109	59	X109	145	X145	90	X145	74	X145	69
45TH FL. 12'-9"	W14	120	W14	113	W14	86	W14	90	W14	216	W14	134	W14	111	W14	103
44TH FL. 12'-9"	X159	157	X132	153	X132	132	X132	121	X176	257	X176	183	X193	147	X193	136
43RD FL. 12'-9"	W14	220	W14	222	W14	192	W14	179	W14	451	W14	240	W14	183	W14	170
42ND FL. 12'-9"	X193	252	X176	252	X176	219	X176	205	X193	508	X193	288	X257	219	X257	203
41ST FL. 12'-9"	W14	283	W14	282	W14	246	W14	231	W14	566	W14	330	W14	255	W14	236
40TH FL. 12'-9"	X233	315	X211	312	X211	273	X211	257	X257	623	X257	371	X311	290	X311	269
39TH FL. 12'-9"	W14	347	W14	341	W14	300	W14	283	W14	680	W14	412	W14	326	W14	303
38TH FL. 12'-9"	X283	364	X233	355	X233	330	X257	311	X257	744	X311	454	X342	362	X342	336
37TH FL. 12'-9"	W14	398	W14	387	W14	357	W14	336	W14	801	W14	495	W14	398	W14	369
36TH FL. 12'-9"	X342	430	X283	416	X283	384	X311	362	X311	859	X342	536	X370	434	X370	402
35TH FL. 12'-9"	W14	465	W14	461	W14	414	W14	391	W14	916	W14	576	W14	469	W14	435
34TH FL. 12'-9"	X398	527	X311	548	X311	481	X342	453	X342	1081	X370	642	X370	505	X370	469
33RD FL. 12'-9"	W14	587	W14	612	W14	521	W14	493	W14	1123	W14	683	W14	541	W14	502
32ND FL. 12'-9"	X455	620	X342	642	X342	548	X342	519	X370	1281	X370	723	X398	577	X398	535
31ST FL. 12'-9"	W14	650	W14	672	W14	575	W14	544	W14	1338	W14	764	W14	613	W14	568
EL. 309'-3"		683		702		602		570		1395		805		648		601
(1ST DIMENSION PARALLEL TO WEB)																
BASE ℄ FLOOR																

COL. NO.	9		10		11		12		13		14		14A		15	
FLOOR	E	N	E	N	E	N	E	N	E	N	E	N	E	N	E	N
MAIN ROOF																
47TH FL.	W14 X109	27	W14 X109	27	W14 X109	25	W14 X90	24	W14 X90	23	W14 X90	21	W14 X90	18	W14 X90	16
46TH FL.	X145	63	X145	61	X145	58	X109	54	X109	50	X109	47	X109	39	X109	44
45TH FL.	W14	94	W14	92	W14	89	W14	82	W14	77	W14	72	W14	59	W14	81
44TH FL.	X193	125	X193	122	X176	118	X176	109	X132	103	X132	97	X132	80	X159	116
43RD FL.	W14	156	W14	152	W14	146	W14	136	W14	128	W14	121	W14	100	W14	150
42ND FL.	X257	183	X257	178	X193	171	X193	159	X176	150	X176	143	X176	118	X193	180
41ST FL.	W14	209	W14	204	W14	195	W14	182	W14	172	W14	164	W14	136	W14	210
40TH FL.	X311	236	X311	230	X257	220	X257	206	X211	194	X211	184	X211	153	X233	240
39TH FL.	W14	262	W14	256	W14	245	W14	229	W14	216	W14	205	W14	171	W14	270
38TH FL.	X342	288	X342	282	X311	269	X257	253	X257	238	X233	226	X283	188	X283	300
37TH FL.	W14	315	W14	308	W14	294	W14	276	W14	260	W14	247	W14	205	W14	330
36TH FL.	X370	341	X370	335	X342	319	X311	299	X311	282	X283	268	X283	223	X342	360
35TH FL.	W14	367	W14	361	W14	343	W14	323	W14	304	W14	289	W14	240	W14	390
34TH FL.	X370	395	X370	390	X370	371	X342	349	X342	329	X311	312	X311	259	X398	424
33RD FL.	W14	422	W14	416	W14	396	W14	373	W14	351	W14	332	W14	277	W14	454
32ND FL.	X398	452	X398	443	X370	421	X370	396	X342	373	X342	353	X342	294	X455	484
31ST FL.	W14	483	W14	469	W14	445	W14	419	W14	395	W14	374	W14	311	W14	514
EL. 309'-3"		513		495		470		443		417		395		329		544

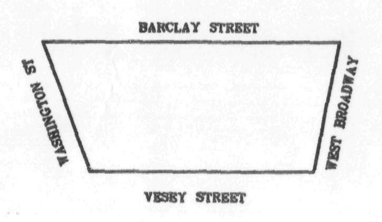
COL. NO.	16		17		17A		18		18A		19		19A		20	
FLOOR	E	N	E	N	E	N	E	N	E	N	E	N	E	N	E	N
MAIN ROOF																
47TH FL.																
46TH FL.																
45TH FL.	W14 X109	102	W14 X120	97			W14 X159	112			W14 X159	112			W14 X176	110
44TH FL.	X159	152	X159	146			X176	162			X176	162			X211	167
43RD FL.	W14	203	W14	195			W14	212			W14	212			W14	223
42ND FL.	X193	244	X193	235			X211	266			X211	266			X233	272
41ST FL.	W14	286	W14	275			W14	312			W14	312			W14	318
40TH FL.	X233	327	X233	315			X233	366			X233	366			X257	367
39TH FL.	W14	369	W14	355			W14	412			W14	412			W14	414
38TH FL.	X311	410	X311	396			X311	466			X311	466			X311	463
37TH FL.	W14	452	W14	436			W14	512			W14	512			W14	509
36TH FL.	X398	493	X370	476			X370	558			X342	558			X342	556
35TH FL.	W14	534	W14	516			W14	605			W14	605			W14	612
34TH FL.	X455	585	X398	565			X398	661			X370	661			X370	668
33RD FL.	W14	626	W14	605			W14	707			W14	707			W14	714
32ND FL.	X500	668	X426	645			X426	754			X398	754			X398	761
31ST FL.	W14	709	W14	685			W14	800			W14	800			W14	807
EL. 309'-3"		751		726				846				846				853

COL. NO.	21		21A		22		22A		23		23A		24		24A	
FLOOR	E	N	E	N	E	N	E	N	E	N	E	N	E	N	E	N
MAIN ROOF																
47TH FL.																
46TH FL.																
45TH FL.	W14 X176	110			14 X176	110			W14 X176	110			W14 X159	128		
44TH FL.	X211	167			X211	167			X211	167			X176	192		
43RD FL.	W14	223			W14	223			W14	223			W14	257		
42ND FL.	X233	229			X233	229			X233	229			X211	264		
41ST FL.	W14	285			W14	285			W14	285			W14	328		
40TH FL.	X257	291			X257	291			X257	291			X233	335		
39TH FL.	W14	347			W14	347			W14	347			W14	400		
38TH FL.	X311	353			X145	353			X145	353			X145	407		
37TH FL.	W14	408			W14	408			W14	408			W14	472		
36TH FL.	X342	454			X342	454			X342	454			X342	525		
35TH FL.	W14	510			W14	510			W14	510			W14	589		
34TH FL.	X370	567			X370	567			X370	567			X370	654		
33RD FL.	W14	613			W14	613			W14	613			W14	707		
32ND FL.	X398	659			X398	659			X398	659			X398	760		
31ST FL.	W14	706			W14	706			W14	706			W14	813		
EL. 309'-3"		752				752				752				867		

COL. NO.	25		25A		26		27		28		29		30		31		32	
FLOOR	E	N	E	N	E	N	E	N	E	N	E	N	E	N	E	N	E	N
MAIN ROOF																		35
47TH FL.									W14 X90	5	W14 X90	14	W14 X90	11	W14 X90	31	W14 X90	76
46TH FL.									X109	29	X109	29	X109	28	X109	70	X109	121
45TH FL.	W14 X159	128			W14 X120	128	W14 X109	129	W14	93	W14	50	W14	48	W14	127	W14	167
44TH FL.	X176	192			X159	209	X159	153	X159	128	X132	95	X132	91	X132	171	X176	212
43RD FL.	W14	257			W14	291	W14	177	W14	162	W14	140	W14	133	W14	221	W14	256
42ND FL.	X211	264			X193	297	X193	184	X193	195	X176	182	X176	173	X176	263	X193	299
41ST FL.	W14	328			W14	378	W14	209	W14	230	W14	227	W14	215	W14	313	W14	344
40TH FL.	X233	335			X233	394	X233	216	X233	263	X211	269	X211	255	X211	355	X257	387
39TH FL.	W14	400			W14	466	W14	240	W14	297	W14	314	W14	297	W14	406	W14	431
38TH FL.	X311	407			X145	472	X311	247	X283	331	X233	357	X233	337	X283	447	X283	479
37TH FL.	W14	472			W14	553	W14	271	W14	365	W14	401	W14	379	W14	491	W14	519
36TH FL.	X370	525			X370	619	X398	293	X342	396	X283	439	X283	414	X311	532	X311	560
35TH FL.	W14	589			W14	701	W14	317	W14	430	W14	483	W14	456	W14	575	W14	605
34TH FL.	X398	654			X398	782	X455	341	X398	464	X311	527	X311	497	X342	615	X342	649
33RD FL.	W14	707			W14	848	W14	363	W14	495	W14	564	W14	532	W14	655	W14	695
32ND FL.	X426	760			X426	915	X500	385	X455	526	X342	601	X342	567	X342	695	X370	741
31ST FL.	W14	813			W14	981	W14	407	W14	556	W14	638	W14	602	W14	735	W14	787
EL. 309'-3"		867				1047		428		587		675		637		775		833

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
2	3/1/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO B.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

STATE OF NEW YORK · IRWIN G. CANTOR · No. 32548 · LICENSED PROFESSIONAL ENGINEER

COLUMN SCHEDULE # 1

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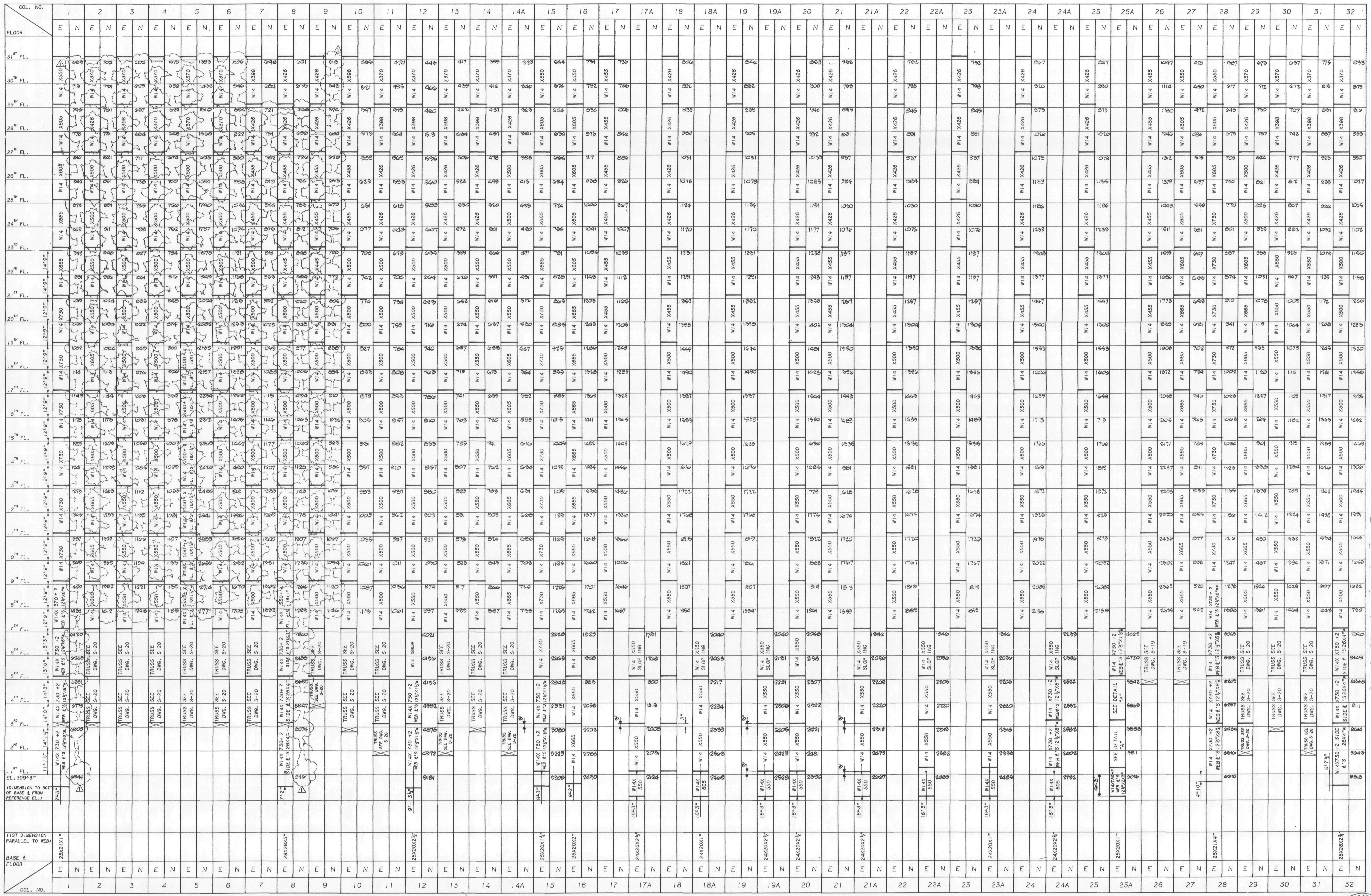
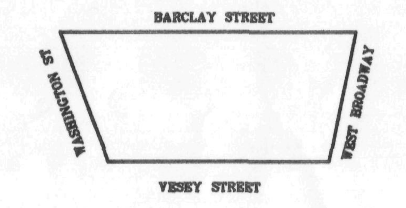
Project No.:
Date:
Scale:
Sheet No. S-26

88057



Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
1	3/1/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	12/19/88	[illegible]

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ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #2

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Project No.:
Sheet No.: S-27
Date:
Scale:

WTC1-2-SOM

FLOOR	Story ht.	33	34	35	36	37	38	39	40	41	42	43	44	44A	45	45A	46	46A
31ST FL.	12'-9"																	
30TH FL.	12'-9"	X730 / 852	X398 / 871	X426 / 818	X398 / 810	X370 / 901	X370 / 810	X370 / [illegible]	X370 / 901	X370 / 832	X550 / 688	X455 / 510	X455 / 1702		X455 / 1357		X455 / 1262	
29TH FL.	12'-9"	W14 / 900	W14 / 913	W14 / 862	W14 / 847	W14 / 938	W14 / 847	W14 / 847	W14 / 938	W14 / 871	W14 / 722	W14 / 535	W14 / 1789		W14 / 1427		W14 / 1327	
28TH FL.	12'-9"	X398 / 937	X426 / 956	X426 / 899	X426 / 884	X398 / 977	X398 / 884	X398 / 884	X398 / 977	X426 / 909	X605 / 756	X500 / 561	X500 / 1876		X500 / 1498		X500 / 1392	
27TH FL.	12'-9"	W14 / 974	W14 / 993	W14 / 936	W14 / 921	W14 / 1014	W14 / 921	W14 / 921	W14 / 1014	W14 / 948	W14 / 790	W14 / 586	W14 / 1964		W14 / 1568		W14 / 1457	
26TH FL.	12'-9"	X426 / 1011	X455 / 1031	X455 / 973	X455 / 959	X426 / 1052	X426 / 959	X426 / 959	X426 / 1052	X500 / 986	X605 / 824	X500 / 611	X500 / 2051		X500 / 1638		X500 / 1522	
25TH FL.	12'-9"	W14 / 1049	W14 / 1068	W14 / 1011	W14 / 996	W14 / 1090	W14 / 996	W14 / 996	W14 / 1090	W14 / 1025	W14 / 857	W14 / 636	W14 / 2138		W14 / 1708		W14 / 1586	
24TH FL.	12'-9"	X426 / 1086	X455 / 1105	X455 / 1048	X455 / 1033	X426 / 1128	X426 / 1033	X426 / 1033	X426 / 1128	X500 / 1064	X730 / 891	X500 / 661	X500 / 2225		X500 / 1779		X500 / 1651	
23RD FL.	14'-9"	W14 / 1123	W14 / 1142	W14 / 1085	W14 / 1070	W14 / 1165	W14 / 1070	W14 / 1070	W14 / 1165	W14 / 1102	W14 / 925	W14 / 686	W14 / 2312		W14 / 1849		W14 / 1716	
22ND FL.	14'-9"	X500 / 1171	X500 / 1189	X500 / 1133	X500 / 1118	X500 / 1214	X500 / 1118	X550 / 1118	X550 / 1214	X605 / 1152	X730 / 966	X550 / 717	X550 / 2429		X550 / 1940		X550 / 1802	
21ST FL.	14'-9"	W14 / 1219	W14 / 1237	W14 / 1181	W14 / 1166	W14 / 1262	W14 / 1166	W14 / 1166	W14 / 1262	W14 / 1202	W14 / 1006	W14 / 747	W14 / 2545		W14 / 2032		W14 / 1888	
20TH FL.	12'-9"	X500 / 1267	X500 / 1285	X500 / 1229	X500 / 1214	X500 / 1311	X500 / 1214	X550 / 1214	X550 / 1311	X665 / 1251	X730 / 1046	X550 / 777	X550 / 2661		X550 / 2123		X550 / 1974	
19TH FL.	12'-9"	W14 / 1304	W14 / 1322	W14 / 1266	W14 / 1251	W14 / 1349	W14 / 1251	W14 / 1251	W14 / 1349	W14 / 1290	W14 / 1080	W14 / 802	W14 / 2748		W14 / 2193		W14 / 2039	
18TH FL.	12'-9"	X500 / 1341	X500 / 1360	X500 / 1304	X500 / 1289	X500 / 1386	X500 / 1289	X550 / 1289	X550 / 1386	X665 / 1329	X730 / 1114	X605 / 827	X605 / 2835		X550 / 2264		X550 / 2104	
17TH FL.	12'-9"	W14 / 1379	W14 / 1397	W14 / 1341	W14 / 1326	W14 / 1424	W14 / 1326	W14 / 1326	W14 / 1424	W14 / 1367	W14 / 1148	W14 / 852	W14 / 2922		W14 / 2334		W14 / 2169	
16TH FL.	12'-9"	X500 / 1416	X500 / 1431	X500 / 1378	X500 / 1363	X500 / 1462	X500 / 1363	X550 / 1363	X550 / 1462	X665 / 1406	X730 / 1182	X605 / 878	X605 / 3010		X550 / 2404		X550 / 2234	
15TH FL.	12'-9"	W14 / 1453	W14 / 1471	W14 / 1415	W14 / 1400	W14 / 1500	W14 / 1400	W14 / 1400	W14 / 1500	W14 / 1444	W14 / 1216	W14 / 903	W14 / 3097		W14 / 2474		W14 / 2299	
14TH FL.	12'-9"	X500 / 1490	X500 / 1509	X500 / 1452	X500 / 1437	X500 / 1537	X500 / 1437	X550 / 1437	X550 / 1537	X665 / 1483	X730 / 1250	X605 / 928	X605 / 3184		X550 / 2545		X550 / 2364	
13TH FL.	12'-9"	W14 / 1527	W14 / 1546	W14 / 1490	W14 / 1475	W14 / 1575	W14 / 1475	W14 / 1475	W14 / 1575	W14 / 1522	W14 / 1284	W14 / 953	W14 / 3271		W14 / 2615		W14 / 2429	
12TH FL.	12'-9"	X500 / 1565	X500 / 1583	X500 / 1527	X500 / 1512	X500 / 1613	X500 / 1512	X550 / 1512	X550 / 1613	X665 / 1560	X730 / 1318	X665 / 978	X665 / 3358		X550 +2 ℄'S 12X1" / 2685		X605 / 2494	
11TH FL.	12'-9"	W14 / 1602	W14 / 1620	W14 / 1564	W14 / 1549	W14 / 1651	W14 / 1549	W14 / 1549	W14 / 1651	W14 / 1599	W14 / 1352	W14 / 1103	W14 / 3445		W14 WEB / 2756		W14 / 2559	
10TH FL.	12'-9"	X500 / 1369	X500 / 1657	X500 / 1601	X500 / 1586	X500 / 1688	X500 / 1586	X550 / 1586	X550 / 1688	X665 / 1637	X730 / 1386	X665 / 1028	X665 / 3533		X550 +2 ℄'S 12X1" / 2826		X605 / 2624	
9TH FL.	12'-9"	W14 / 1676	W14 / 1695	W14 / 1638	W14 / 1624	W14 / 1726	W14 / 1624	W14 / 1624	W14 / 1726	W14 / 1676	W14 / 1419	W14 / 1054	W14 / 3620		W14 WEB / 2896		W14 / 2689	
8TH FL.	12'-9"	X500 / 1713	X500 / 1732	X500 / 1676	X500 / 1661	X500 / 1764	X500 / 1661	X550 / 1661	X550 / 1764	X665 / 1714	X730 +2 ℄'S 12½"X6"** / 1453	X665 / 1079	X665 / 3707		X605 / 2966		X605 / 2754	
7TH FL.	12'-9"	W14 / 1751	W14 / 1769	W14 / 1713	W14 / 1698	W14 / 1802	W14 / 1698	W14 / 1698	W14 / 1802	W14 / 1753	W14 WEB / 1489	W14 / 1104	W14 / 3795		W14 / 3037		W14 / 2819	
6TH FL.	13'-3"	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	W14X 730 +2 SIDE ℄'S 26X4"* / 3086	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	W14X 730 +2 WEB ℄'S 12½"X6"* / 4754	TRUSS SEE DWG. S-19		X730* ING / 4518		X605 ING / 3171		X665 ING / 2943
5TH FL.	13'-0"						9204				4869			W14 SLOP / 4694		W14 SLOP / 3268		W14 SLOP / 3074
4TH FL.	14'-3"	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	W14X 730 +2 SIDE ℄'S 26X4"* / 9745	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	W14X 730 +2 WEB ℄'S 12½"X8"* / 5156			X730 +2 12½"X1½"* / 4969		X730 / 3385		X665 / 3240
3RD FL.	14'-0"						10121				5371			W14 WEB ℄'S / 5174		W14 / 3513		W14 / 3407
2ND FL.	14'-1½"	TRUSS SEE DWG. S-20				TRUSS SEE DWG. S-20	W14X 730 +2 SIDE ℄'S 26X4"* / 10492	TRUSS SEE DWG. S-20		TRUSS SEE DWG. S-20	W14X 730 +2 WEB ℄'S 12½"X8"* / 5586			X730 +2 12½"X1½"* / 5357		X730 / 3535		730+2 ℄'S 12½"X6½" (SEE DET. DWG. S-17A) / 3419
1ST FL.	11'-1½"						10523				5608			W14 WEB ℄'S / 5369		W14 / 3550		W14X X4'-0" / 3431
EL. 309'-3"							10608				5593			5381		3561		3443
(DIMENSION TO BOTT. OF BASE ℄ FROM REFERENCE EL.)							6'-7½"				4'-10"					11'-2"		11'-2"
BASE ℄ (1ST DIMENSION PARALLEL TO WEB)							28X30X2½"				25X21X4"			25X20X1"		25X20X1½"		25X24X1½"

FLOOR	47	47A	48	48A	49	49A	50	50A	51	51A	52	52A	53	53A	54	54A	55	55A	56	57	57A
31ST FL.																					
30TH FL.	X455 / 957		X455 / 987		X455 / 987		X455 / 987		X455 / 948		X455 / 1102		X455 / 1254		X455 / 1465		X455 / 1682		X455 / 1549	X455 / 413	
29TH FL.	W14 / 1018		W14 / 1047		W14 / 1047		W14 / 1047		W14 / 1048		W14 / 1161		W14 / 1313		W14 / 1525		W14 / 1751		W14 / 1619	W14 / 433	
28TH FL.	X500 / 1080		X500 / 1107		X500 / 1107		X500 / 1107		X500 / 1107		X500 / 1220		X500 / 1372		X500 / 1585		X500 / 1820		X500 / 1688	X500 / 453	
27TH FL.	W14 / 1141		W14 / 1167		W14 / 1167		W14 / 1167		W14 / 1167		W14 / 1279		W14 / 1431		W14 / 1646		W14 / 1889		W14 / 1758	W14 / 472	
26TH FL.	X500 / 1203		X500 / 1227		X500 / 1227		X500 / 1227		X500 / 1227		X500 / 1338		X500 / 1490		X500 / 1706		X500 / 1959		X500 / 1827	X500 / 481	
25TH FL.	W14 / 1264		W14 / 1287		W14 / 1287		W14 / 1287		W14 / 1287		W14 / 1397		W14 / 1549		W14 / 1767		W14 / 2028		W14 / 1897	W14 / 512	
24TH FL.	X500 / 1326		X500 / 1347		X500 / 1347		X500 / 1347		X500 / 1346		X500 / 1456		X500 / 1608		X500 / 1827		X500 / 2097		X500 / 1967	X500 / 531	
23RD FL.	W14 / 1387		W14 / 1407		W14 / 1407		W14 / 1407		W14 / 1406		W14 / 1516		W14 / 1667		W14 / 1887		W14 / 2166		W14 / 2036	W14 / 551	
22ND FL.	X550 / 1468		X550 / 1486		X550 / 1486		X550 / 1486		X550 / 1485		X550 / 1594		X550 / 1745		X550 / 1967		X550 / 2257		X550 / 2128	X550 / 575	
21ST FL.	W14 / 1549		W14 / 1565		W14 / 1565		W14 / 1565		W14 / 1564		W14 / 1672		W14 / 1823		W14 / 2047		W14 / 2348		W14 / 2221	W14 / 599	
20TH FL.	X550 / 1631		X550 / 1644		X550 / 1644		X550 / 1644		X550 / 1643		X550 / 1750		X550 / 1901		X550 / 2127		X550 / 2439		X550 / 2313	X550 / 622	
19TH FL.	W14 / 1692		W14 / 1704		W14 / 1704		W14 / 1704		W14 / 1702		W14 / 1809		W14 / 1960		W14 / 2188		W14 / 2508		W14 / 2382	W14 / 642	
18TH FL.	X550 / 1754		X550 / 1764		X550 / 1764		X550 / 1764		X550 / 1762		X550 / 1869		X550 / 2019		X550 / 2248		X550 / 2577		X605 / 2452	X605 / 662	
17TH FL.	W14 / 1815		W14 / 1824		W14 / 1824		W14 / 1824		W14 / 1822		W14 / 1928		W14 / 2078		W14 / 2308		W14 / 2646		W14 / 2522	W14 / 681	
16TH FL.	X550 / 1877		X550 / 1844		X550 / 1844		X550 / 1844		X550 / 1882		X550 / 1987		X550 / 2137		X550 / 2369		X550 / 2715		X605 / 2591	X605 / 701	
15TH FL.	W14 / 1938		W14 / 1944		W14 / 1944		W14 / 1944		W14 / 1941		W14 / 2046		W14 / 2196		W14 / 2429		W14 / 2784		W14 / 2661	W14 / 721	
14TH FL.	X550 / 2000		X550 / 2004		X550 / 2004		X550 / 2004		X550 / 2001		X550 / 2105		X550 / 2255		X550 / 2489		X550 / 2853		X605 / 2730	X605 / 741	
13TH FL.	W14 / 2061		W14 / 2064		W14 / 2064		W14 / 2064		W14 / 2061		W14 / 2164		W14 / 2314		W14 / 2650		W14 / 2922		W14 / 2800	W14 / 760	
12TH FL.	X605 / 2123		X605 / 2124		X605 / 2124		X605 / 2124		X605 / 2120		X605 / 2223		X605 / 2373		X605 / 2610		X550 +2 ℄'S 12X1" / 2991		X665 / 2870	X665 / 780	
11TH FL.	W14 / 2184		W14 / 2184		W14 / 2184		W14 / 2184		W14 / 2180		W14 / 2282		W14 / 2432		W14 / 2671		W14 WEB / 3060		W14 / 2939	W14 / 800	
10TH FL.	X605 / 2246		X605 / 2244		X605 / 2244		X605 / 2244		X605 / 2240		X605 / 2341		X605 / 2491		X605 / 2731		X550 +2 ℄'S 12X1" / 3129		X665 / 3009	X665 / 819	
9TH FL.	W14 / 2307		W14 / 2304		W14 / 2304		W14 / 2304		W14 / 2300		W14 / 2401		W14 / 2550		W14 / 2791		W14 WEB / 3198		W14 / 3079	W14 / 839	
8TH FL.	X605 / 2369	MG-27 SEE DWG S-23	X605 / 2364	MG-27 SEE DWG S-23	X605 / 2364	MG-27 SEE DWG S-23	X605 / 2364	MG-27 SEE DWG S-23	X605 / 2359	MG-27 SEE DWG S-23	X605 / 2460	MG-27 SEE DWG S-23	X605 / 2609	MG-27 SEE DWG S-23	X605 / 2852	MG-27 SEE DWG S-23	X605 / 3267		X665 / 3148	X665 / 859	
7TH FL.	W14 / 243		W14 / 2424		W14 / 2424		W14 / 2424		W14 / 2419		W14 / 2519		W14 / 2669		W14 / 2913		W14 / 3337		W14 / 3218	W14 / 878 (revision 2)	
6TH FL.		W14X 665 / 2934		W14X 665 / 2919		W14X 665 / 2919		W14X 665 / 2928		W14X 665 / 2919		W14X 665 / 3034		W14X 665 / 3205		W14X 665 / 3488		X730* ING / 4954	TRUSS SEE DWG. S-19		X730 ING / 2792
5TH FL.		3079		3052		3052		3058		3052		3167		3338		3633		W14 SLOP / 5058			W14 SLOP / 2884
4TH FL.		X665 / 3258		X665 / 3214		X665 / 3214		X665 / 3210		X665 / 3214		X665 / 3329		X665 / 3500		X665 / 3812		W14X 730 +2 WEB ℄'S 12½"X1"* / 5289			X730 / 3088
3RD FL.		W14 / 3436 / 2"		W14 / 3372 / 2"		W14 / 3372 / 2"		W14 / 3368 / 2"		W14 / 3372 / 2"		W14 / 3487 / 2"		W14 / 3658 / 2"		W14 / 3990 / 2"		5530			W14 / 3146
2ND FL.		EXIST. COL. / 3674		EXIST. COL. / 3666		EXIST. COL. / 3550		EXIST. COL. / 3546		EXIST. COL. / 3654		EXIST. COL. / 3721		EXIST. COL. / 3836		EXIST. COL. / 4165		W14 X730 + 2 WEB ℄'S 12½" X1"* / 5544			X730 / 3160
1ST FL.		3880		3846		3730		3726		3857		3860		4016		4345		5558			W14 / 3174
EL. 309'-3"		3979		3933		3817		3814		3880		3880		4103		4432		5567			3182
(DIMENSION TO BOTT. OF BASE ℄ FROM REFERENCE EL.)																		11'-2"			11'-2"
BASE ℄ (1ST DIMENSION PARALLEL TO WEB)																		25X20X1"			25X20X1½"

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048

KEY PLAN: BARCLAY STREET, WEST BROADWAY, VESEY STREET, ST. WASHINGTON

NOTES

LEGEND

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2	3/7/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM — SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
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FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

STATE OF NEW YORK — IRWIN G. CANTOR — LICENSED PROFESSIONAL ENGINEER

COLUMN SCHEDULE #3

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Project No.:
Date:
Scale:
Sheet No. S-28

88057

FLOOR / COL. NO.		33 E	33 N	34 E	34 N	35 E	35 N	36 E	36 N	37 E	37 N	38 E	38 N
MAIN ROOF													
47TH FL.	14'-10"	W14 X109	93	W14 X109	76	W14 X109	76	W14 X109	93	W14 X109	89	W14 X90	93
46TH FL.	12'-9"	X145	137	X145	120	X145	121	X145	137	X145	133	X109	137
45TH FL.	14'-3"	W14	181	W14	166	W14	166	W14	182	W14	180	W14	182
44TH FL.	12'-9"	X176	226	X193	211	X193	211	X193	227	X176	233	X176	227
43RD FL.	12'-9"	W14	271	W14	267	W14	255	W14	272	W14	304	W14	272
42ND FL.	12'-9"	X193	314	X342	310	X342	298	X342	315	X193	347	X193	315
41ST FL.	12'-9"	W14	358	W14	367	W14	343	W14	359	W14	419	W14	359
40TH FL.	12'-9"	X257	401	X311	410	X311	386	X311	402	X257	462	X257	402
39TH FL.	12'-9"	W14	446	W14	466	W14	430	W14	447	W14	533	W14	447
38TH FL.	12'-9"	X311	490	X342	509	X342	473	X342	490	X311	577	X283	490
37TH FL.	12'-9"	W14	535	W14	554	W14	518	W14	534	W14	622	W14	534
36TH FL.	12'-9"	X342	572	X370	591	X370	555	X370	572	X370	660	X311	572
35TH FL.	12'-9"	W14	616	W14	636	W14	600	W14	616	W14	705	W14	616
34TH FL.	12'-9"	X370	661	X370	680	X370	644	X370	661	X370	750	X342	661
33RD FL.	12'-9"	W14	709	W14	728	W14	688	W14	698	W14	788	W14	698
32ND FL.	12'-9"	X370	756	X398	776	X398	731	X398	735	X370	826	X370	735
31ST FL.	14'-9"	W14	804	W14	824	W14	775	W14	773	W14	863	W14	773
EL. 309'-3" (DIMENSION TO BOTT. OF BASE ℄ FROM REFERENCE EL.)													
(1ST DIMENSION PARALLEL TO WEB)													
BASE ℄ FLOOR													

FLOOR / COL. NO.		39 E	39 N	40 E	40 N	41 E	41 N	42 E	42 N	43 E	43 N	44 E	44 N
47TH FL.	14'-10"	W14 X90	93	W14 X90	89	W14 X90	89	W14 X90	60	W14 X99	44	W14 X99	275
46TH FL.	12'-9"	X109	137	X109	133	X109	134	X109	103	X120	75	X120	378
45TH FL.	14'-3"	W14	182	W14	180	W14	182	W14	142	W14	105	W14	487
44TH FL.	12'-9"	X132	227	X132	233	X132	228	X159	180	X145	133	X145	595
43RD FL.	12'-9"	W14	272	W14	304	W44	274	W14	217	W14	161	W14	703 1-SOUTH SIDE PL. 12 3/4 x 1/2
42ND FL.	12'-9"	X176	316	X176	347	X176	319	X193	254	X159	189	X159*	710
41ST FL.	12'-9"	W14	359	W14	419	W14	365	W14	292	W14	217	W14	819
40TH FL.	12'-9"	X211	402	X211	462	X211	410	X233	329	X193	244	X193*	826
39TH FL.	12'-9"	W14	447	W14	533	W14	456	W14	367	W14	272	W14	934
38TH FL.	12'-9"	X283	490	X233	577	X233	500	X283	404	X257	300	X257	941
37TH FL.	12'-9"	W14	534	W14	622	W14	547	W14	442	W14	328	W14	1050
36TH FL.	12'-9"	X311	572	X283	660	X283	585	X342	476	X283	357	X283	1137
35TH FL.	12'-9"	W14	616	W14	705	W14	631	W14	514	W14	381	W14	1245
34TH FL.	12'-9"	X342	661	X311	750	X311	678	X398	552	X370	410	X370	1353
33RD FL.	12'-9"	W14	698	W14	788	W14	716	W14	586	W14	435	W14	1441
32ND FL.	12'-9"	X342	735	X342	826	X342	755	X455	620	X426	460	X426	1528
31ST FL.	14'-9"	W14	773	W14	863	W14	793	W14	654	W14	485	W14	1615

FLOOR / COL. NO.	44A E	44A N	45 E	45 N	45A E	45A N	46 E	46 N	46A E	46A N	47 E	47 N	47A E	47A N
47TH FL.			W14 X99	207			W14 X99	199			W14 X120	20		
46TH FL.			X120	289			X120	276			X159	26		
45TH FL.			W14	374			W14	356			W14	108		
44TH FL.			X159	460			X159	436			X176	177		
43RD FL.			W14	545			W14	516			W14	253		
42ND FL.			X193	556			X193	523			X233	259		
41ST FL.			W14	642			W14	603			W14	335		
40TH FL.			X233	653			X233	610			X283	341		
39TH FL.			W14	738			W14	690			W14	416		
38TH FL.			X283	749			X283	697			X311	422		
37TH FL.			W14	835			W14	777			W14	498		
36TH FL.			X311	905			X311	842			X342	559		
35TH FL.			W14	990			W14	922			W14	635		
34TH FL.			X370	1076			X370	1002			X398	711		
33RD FL.			W14	1146			W14	1067			W14	772		
32ND FL.			X426	1216			X426	1132			X426	834		
31ST FL.			W14	1287			W14	1197			W14	895		

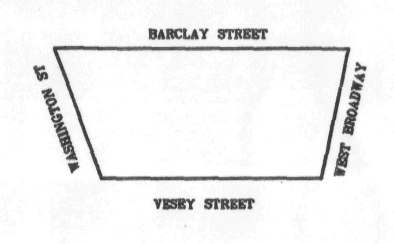
FLOOR / COL. NO.	48 E	48 N	48A E	48A N	49 E	49 N	49A E	49A N	50 E	50 N	50A E	50A N	51 E	51 N
47TH FL.	W14 X120	15			W14 X120	15			W14 X120	15			W14 X120	16
46TH FL.	X159	21			X176	21			X176	21			X176	22
45TH FL.	W14	136			W14	136			W14	136			W14	137
44TH FL.	X176	226			X233	226			X233	226			X233	226
43RD FL.	W14	300			W14	300			W14	300			W14	300
42ND FL.	X233	306			X283	306			X283	306			X283	335
41ST FL.	W14	380			W14	380			W14	380			W14	381
40TH FL.	X283	386			X311	386			X311	386			X311	416
39TH FL.	W14	459			W14	459			W14	459			W14	463
38TH FL.	X311	465			X342	465			X342	465			X342	498
37TH FL.	W14	539			W14	539			W14	539			W14	571
36TH FL.	X342	599			X370	599			X370	599			X370	631
35TH FL.	W14	673			W14	673			W14	673			W14	676
34TH FL.	X398	747			X398	747			X398	747			X398	749
33RD FL.	W14	807			W14	807			W14	807			W14	809
32ND FL.	X426	867			X426	867			X426	867			X426	869
31ST FL.	W14	927			W14	927			W14	927			W14	928

FLOOR / COL. NO.	51A E	51A N	52 E	52 N	52A E	52A N	53 E	53 N	53A E	53A N	54 E	54 N	54A E	54A N
47TH FL.			W14 X120	14			W14 X120	54			W14 X120	306		
46TH FL.			X159	20			X159	76			X120	395		
45TH FL.			W14	134			W14	291			W14	470		
44TH FL.			X176	224			X176	380			X159	544		
43RD FL.			W14	296			W14	453			W14	648		
42ND FL.			X233	363			X233	519			X193	708		
41ST FL.			W14	422			W14	578			W14	768		
40TH FL.			X283	489			X283	643			X233	829		
39TH FL.			W14	548			W14	702			W14	889		
38TH FL.			X311	615			X311	768			X283	926		
37TH FL.			W14	674			W14	827			W14	986		
36TH FL.			X342	733			X342	886			X311	1047		
35TH FL.			W14	793			W14	945			W14	1106		
34TH FL.			X398	865			X398	1018			X370	1209		
33RD FL.			W14	925			W14	1077			W14	1283		
32ND FL.			X426	984			X426	1136			X426	1344		
31ST FL.			W14	1043			W14	1195			W14	1404		

FLOOR / COL. NO.	55 E	55 N	55A E	55A N	56 E	56 N	57 E	57 N	57A E	57A N
47TH FL.	14 X99	74			W14 X99	75	W14 X99	20		
46TH FL.	X120	366			X120	157	X120	44		
45TH FL.	W14	451			W14	243	W14	68		
44TH FL.	X159	536			X145	329	X145	91		
43RD FL.	W14	689			W14	517	W14	130		
42ND FL.	X193	758			X159*	587	X159	150		
41ST FL.	W14	827			W14	657	W14	170		
40TH FL.	X233	896			X193	726	X193	190		
39TH FL.	W14	965			W14	796	W14	210		
38TH FL.	X283	1042			X257	873	X257	230		
37TH FL.	W14	1111			W14	943	W14	250		
36TH FL.	X311	1180			X283	1012	X283	270		
35TH FL.	W14	1249			W14	1082	W14	290		
34TH FL.	X370	1402			X370	1270	X370	328		
33RD FL.	W14	1475			W14	1340	W14	354		
32ND FL.	X426	1544			X426	1410	X426	374		
31ST FL.	W14	1613			W14	1479	W14	394 (2)		

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
2	3/1/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #4

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Project No.:
Date:
Scale:
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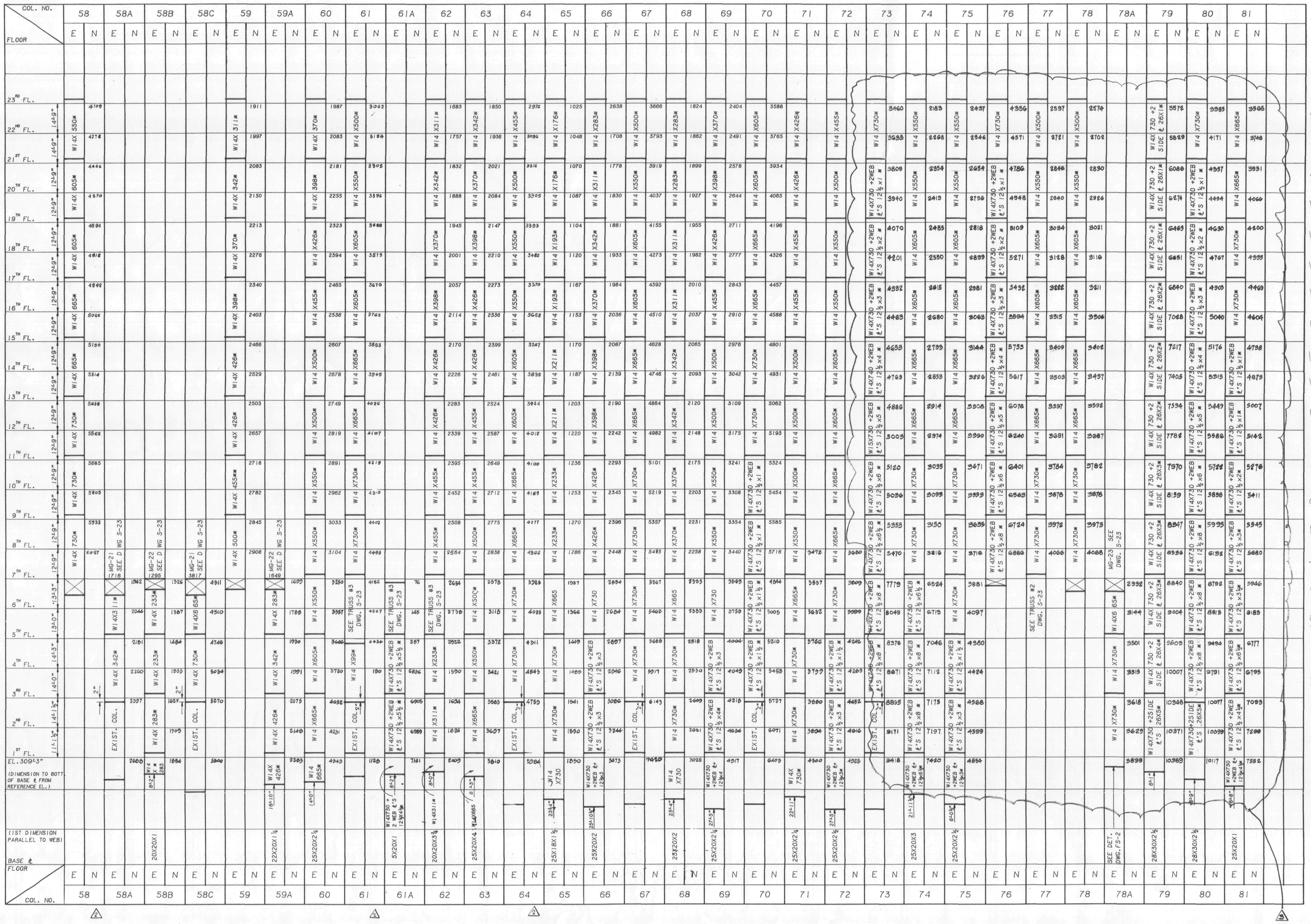

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048

BARCLAY STREET
VESEY STREET
WEST BROADWAY
KEY PLAN

NOTES

LEGEND

No.	Date	Revision
2	5/11/89	REVISED AS CIRCLED
	1/9/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO N.Y.C. FOR APPROVAL

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #5

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88057

WTC1-2-SOM

COLUMN SCHEDULE #6

Floors: Bulkhead Roof – 23rd Fl. — Columns 58–69 (E = existing column size; N = load, kips / new column or column reinforcing)

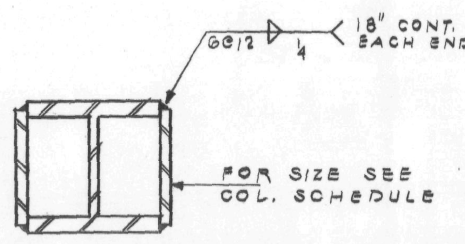
Floor	Story ht.	58 E	58 N	59 E	59 N	60 E	60 N	61 E	61 N	62 E	62 N	63 E	63 N	64 E	64 N	65 E	65 N	66 E	66 N	67 E	67 N	68 E	68 N	69 E	69 N
Bulkhead Roof								W14 X90*	31		29			W14 X90*	35		35		11						
Main Roof	14'-10"	W14 X99*	154	W14 X90*	97	W14 X90*	63		170	W14 X90*	134	W14 X90*	86		186	W14 X90*	225	W14 X90*	85	W14 X90*	159	W14 X90*	194	W14 X90*	69
47th Fl.	12'-9"	W14 X109*	553	W14 X90*	183	W14 X90*	135	W14 X99*	435	W14 X90*	229	W14 X90*	184	W14 X99*	408	W14 X90*	602	W14 X90*	236	W14 X99*	367	W14 X90*	510	W14 X90*	183
46th Fl.	12'-9"		711		264		251		552		300		310		556		624		356		595		618		342
45th Fl.	12'-9"	W14 X145*	902	W14 X99*	344	W14 X99*	342	W14 X132*	695	W14 X99*	367	W14 X99*	390	W14 X120*	669	W14 X90*	645	W14 X99*	422	W14 X132*	730	W14 X99*	668	W14 X99*	434
44th Fl.	12'-9"		1128		425		432		887		437		470		884		666		487		866		733		527
43rd Fl.	12'-9"	W14 X193*	1262	W14 X109*	495	W14 X109*	503	W14 X159*	978	W14 X109*	497	W14 X109*	535	W14 X145*	973	W14 X99*	683	W14 X109*	543	W14 X159*	1014	W14 X109*	783	W14 X109*	632
42nd Fl.	12'-9"		1395		565		574		1070		557		601		1061		699		599		1150		834		725
41st Fl.	12'-9"	W14 X233*	1529	W14 X132*	635	W14 X132*	645	W14 X193*	1161	W14 X132*	616	W14 X132*	666	W14 X176*	1149	W14 X99*	716	W14 X132*	655	W14 X193*	1297	W14 X132*	884	W14 X132*	830
40th Fl.	12'-9"		1663		706		716		1253		676		731		1238		732		712		1433		935		923
39th Fl.	12'-9"	W14 X283*	1807	W14 X145*	776	W14 X159*	787	W14 X211*	1367	W14 X145*	736	W14 X159*	796	W14 X211*	1326	W14 X109*	749	W14 X145*	768	W14 X233*	1569	W14 X159*	985	W14 X159*	1016
38th Fl.	12'-9"		1941		846		858		1461		795		861		1417		766		824		1704		1039		1109
37th Fl.	12'-9"	W14 X311*	2075	W14 X159*	922	W14 X193*	932	W14 X233*	1552	W14 X159*	854	W14 X176*	926	W14 X257*	1506	W14 X109*	782	W14 X159*	880	W14 X283*	1991	W14 X176*	1159	W14 X193*	1182
36th Fl.	12'-9"		2209		992		1003		1644		914		992		1694		799		938		2109		1211		1275
35th Fl.	12'-9"	W14 X370*	2435	W14 X193*	1072	W14 X211*	1094	W14 X283*	1835	W14 X176*	988	W14 X193*	1074	W14 X283*	1789	W14 X120*	820	W14 X176*	1001	W14 X311*	2228	W14 X193*	1264	W14 X211*	1368
34th Fl.	12'-9"		2661		1147		1168		2027		1044		1137		1971		837		1053		2346		1305		1461
33rd Fl.	12'-9"	W14 X426*	2795	W14 X211*	1222	W14 X233*	1242	W14 X342*	2119	W14 X193*	1100	W14 X211*	1200	W14 X311*	2059	W14 X132*	853	W14 X193*	1104	W14 X342*	2464	W14 X211*	1347	W14 X233*	1554
32nd Fl.	12'-9"		2929		1297		1316		2210		1157		1263		2148		870		1156		2582		1388		1647
31st Fl.	12'-9"	W14 X455*	3063	W14 X233*	1372	W14 X257*	1390	W14 X370*	2301	W14 X211*	1213	W14 X233*	1325	W14 X342*	2236	W14 X145*	886	W14 X211*	1207	W14 X370*	2700	W14 X233*	1429	W14 X257*	1740
30th Fl.	12'-9"		3197		1446		1464		2393		1270		1388		2324		903		1259		2831		1621		1919
29th Fl.	12'-9"	W14 X500*	3321	W14 X257*	1509	W14 X283*	1535	W14 X398*	2484	W14 X233*	1326	W14 X257*	1451	W14 X370*	2413	W14 X145*	920	W14 X233*	1310	W14 X398*	2949	W14 X257*	1649	W14 X283*	1985
28th Fl.	12'-9"		3444		1573		1606		2576		1383		1514		2501		936		1362		3068		1676		2052
27th Fl.	12'-9"	W14 X500*	3568	W14 X283*	1635	W14 X311*	1678	W14 X426*	2667	W14 X257*	1439	W14 X283*	1577	W14 X398*	2590	W14 X159*	953	W14 X257*	1413	W14 X426*	3186	W14 X257*	1704	W14 X311*	2118
26th Fl.	12'-9"		3692		1699		1748		2758		1495		1640		2678		969		1465		3304		1731		2184
25th Fl.	12'-9"	W14 X550*	3816	W14 X311*	1762	W14 X342*	1819	W14 X455*	2850	W14 X283*	1551	W14 X311*	1702	W14 X426*	2767	W14 X159*	986	W14 X283*	1516	W14 X455*	3422	W14 X283*	1759	W14 X342*	2251
24th Fl.	14'-9"		3940		1825		1890		2941		1608		1765		2855		1003		1568		3540		1787		2317
23rd Fl.			4109		1911		1987		3062		1683		1850		2976		1025		1638		3666		1824		2404

Columns 70–81

Floor	Story ht.	70 E	70 N	71 E	71 N	72 E	72 N	73 E	73 N	74 E	74 N	75 E	75 N	76 E	76 N	77 E	77 N	78 E	78 N	79 E	79 N	80 E	80 N	81 E	81 N
Bulkhead Roof																									
Main Roof	14'-10"	W14 X99*	138	W14 X90*	134	W14 X90*	87	W14 X90*	145	W14 X90*	132	W14 X90*	64	W14 X90*	376	W14 X90*	205	W14 X90*	94	W14 X99*	624	W14 X90*	395	W14 X90*	118
47th Fl.	12'-9"	W14 X99*	216	W14 X90*	256	W14 X99*	217	W14 X109*	223	W14 X90*	236	W14 X99*	183	W14 X120*	582	W14 X90*	329	W14 X90*	220	W14 X132	928	W14 X99*	816	W14 X99*	296
46th Fl.	12'-9"		444		363		398		432		328		298		839		445		392		1166 2-SIDE L'S 12¾"X½"		790 2-SIDE L'S 12¾"X½"		505
45th Fl.	12'-9"	W14 X132*	605	W14 X99*	467	W14 X120*	524	W14 X145*	596	W14 X99*	420	W14 X109*	413	W14 X159*	1033	W14 X99*	562	W14 X99*	511	W14 X193*	1406	W14 X145*	963	W14 X145*	661
44th Fl.	12'-9"		774		599		635		762		523 2-SIDE L'S 12¾"X½"		528		1226 2-SIDE L'S 12¾"X½"		678 2-SIDE L'S 12¾"X½"		631 2-SIDE L'S 12¾"X½"		1682 2-SIDE L'S 12¾"X½"		1162 2-SIDE L'S 12¾"X½"		838 2-SIDE L'S 12¾"X½"
43rd Fl.	12'-9"	W14 X159*	834	W14 X132*	731	W14 X132*	675	W14 X176*	782	W14 X132*	538	W14 X132*	545	W14 X193*	1239 2-SIDE L'S 12¾"X½"	W14 X120*	694 2-SIDE L'S 12¾"X½"	W14 X120*	643 2-SIDE L'S 12¾"X½"	W14 X257*	1687 2-SIDE L'S 12¾"X½"	W14 X193*	1167 2-SIDE L'S 12¾"X½"	W14 X176*	845 2-SIDE L'S 12¾"X½"
42nd Fl.	12'-9"		984		852		796		953		641		666		1433		811		762		1962		1365		1021
41st Fl.	12'-9"	W14 X193*	1026	W14 X159*	956	W14 X159*	837	W14 X211*	970	W14 X176*	645	W14 X176*	683	W14 X257*	1446 2-SIDE PL'S 12¾"X½"	W14 X145*	801 2-SIDE PL'S 12¾"X½"	W14 X145*	774 2-SIDE PL'S 12¾"X½"	W14 X311*	1687 2-SIDE PL'S 12¾"X½"	W14 X233*	1570 2-SIDE PL'S 12¾"X½"	W14 X211*	1026
40th Fl.	12'-9"		1200		1077		957		1141		748		804		1639		943		894		2243		1567		1203
39th Fl.	12'-9"	W14 X257*	1252	W14 X193*	1182	W14 X193*	998	W14 X257*	1277	W14 X211*	825	W14 X233*	902	W14 X311*	1738	W14 X176*	1042	W14 X176*	994	W14 X370*	2436	W14 X283*	1709	W14 X257*	1343
38th Fl.	12'-9"		1412		1286		1108		1408		898		994		1952		1136		1088		2625		1846		1477
37th Fl.	12'-9"	W14 X342*	1648	W14 X233*	1483	W14 X233*	1197	W14 X342*	1538	W14 X257*	970	W14 X283*	1087	W14 X370*	2105	W14 X233*	1130	W14 X233*	1184	W14 X426*	2813	W14 X342*	1982	W14 X311*	1612
36th Fl.	12'-9"		1807		1570		1308		1669		1043		1180		2258		1324		1279		3002		2124		1746
35th Fl.	12'-9"	W14 X370*	1968	W14 X257*	1657	W14 X283*	1418	W14 X398*	1832	W14 X311*	1135	W14 X342*	1285	W14 X426*	2452	W14 X283*	1440	W14 X283*	1398	W14 X455*	3242	W14 X398*	2298	W14 X370*	1902
34th Fl.	12'-9"		2099		1727		1506		1963		1208		1388		2605		1534		1494		3430		2434		2036
33rd Fl.	12'-9"	W14 X398*	2230	W14 X283*	1798	W14 X311*	1594	W14 X455*	2054	W14 X370*	1280	W14 X370*	1481	W14 X455*	2758	W14 X342*	1628	W14 X342*	1589	W14 X500*	3619	W14 X455*	2570	W14 X426*	2171
32nd Fl.	12'-9"		2361		1868		1682		2245		1353		1573		2912		1721		1684		3807		2707		2305
31st Fl.	12'-9"	W14 X426*	2491	W14 X311*	1939	W14 X342*	1770	W14 X500*	2355	W14 X398*	1425	W14 X398*	1666	W14 X500*	3066	W14 X370*	1815	W14 X370*	1780	W14 X500*	3886	W14 X500*	2844	W14 X455*	2440
30th Fl.	12'-9"		2624		2090		1939		2486		1488		1759		3219		1909		1879		4184		2980		2574
29th Fl.	12'-9"	W14 X455*	2755	W14 X342*	2151	W14 X370*	2018	W14 X550*	2617	W14 X426*	1570	W14 X426*	1852	W14 X550*	3373	W14 X398*	2003	W14 X398*	1970	W14 X605*	4872	W14 X550*	3166	W14 X500*	2709
28th Fl.	12'-9"		2886		2213		2097		2747		1643		1945		3526		2097		2065		4561		3253		2843
27th Fl.	12'-9"	W14 X500*	3016	W14 X370*	2274	W14 X398*	2176	W14 X605*	2878	W14 X455*	1715	W14 X455*	2037	W14 X605*	3680	W14 X426*	2190	W14 X426*	2160	W14 X665*	4750	W14 X605*	3390	W14 X550*	2878
26th Fl.	12'-9"		3147		2336		2255		3005		1788		2130		3833		2284		2256		4838		3526		3112
25th Fl.	12'-9"	W14 X550*	3278	W14 X398*	2397	W14 X426*	2334	W14 X665*	3135	W14 X500*	1860	W14 X500*	2003	W14 X665*	3897	W14 X455*	2375	W14 X455*	2351	W14 X730*	5167	W14 X665*	3663	W14 X605*	3247
24th Fl.	14'-9"		3409		2485		2413		3273		1943		2316		4140		2472		2446		5315		3798		3381
23rd Fl.			3588		2680		2585		3460		2183		2437		4356		2597		2374		5572		3985		3565

(Revision markers: △2 under columns 58, 61 and 64; △3 below columns 73–81.)

NOTES:
1. LEGEND E- INDICATES EXISTING COLUMNS.
   N- INDICATES NEW COLUMN OR COLUMN REINFORCING
2. ALL NEW COVER PLATES SHALL BE A572-GRADE 50
3. FOR GENERAL NOTES & TYPICAL DETAILS SEE DRAWINGS S-32 & S-33
4. ALL COLUMN LOADS ARE SERVICE LOADS IN KIPS.



TYPICAL SIDE PLATE REINFORCING DETAIL

NOTE:
1. - REMOVE EXIST. CONNECTIONS AT 39, 41 & 43RD FL.'S AS REQ'D.
2. - EXTEND COLUMN REINF. AS CLOSE AS POSSIBLE TO THE UNDERSIDE OF EXIST. BEAM AND / OR TOP OF EXIST. SLAB.
3. AT SPLICE LOCATIONS CUT REINFORCING PLATE AS REQUIRED & EXTEND MINIMUM 18" INTO COLUMN BELOW WELD CONT. AS SHOWN ABOVE.

△1

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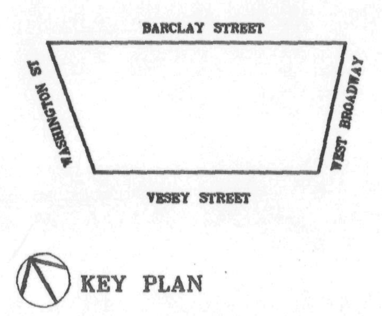

NOTES

LEGEND

No.	Date	Revision
3	5/22/89	REVISED AS CIRCLED
2	3/1/89	REVISED AS CIRCLED
1	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	11/21/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #6

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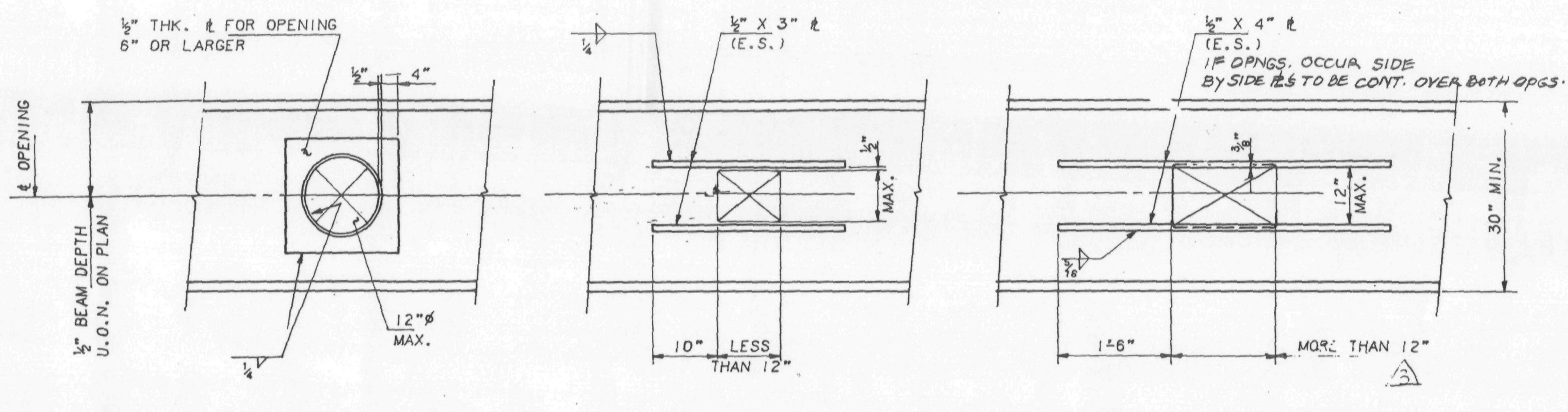
Project No.:
Date:
Scale:
Sheet No. S-31

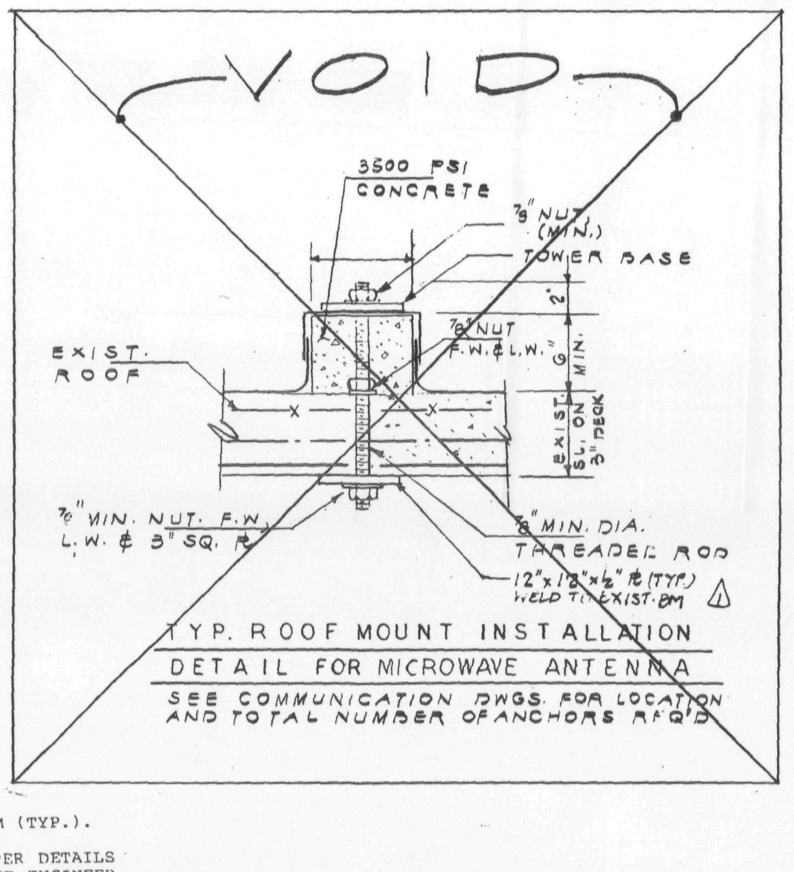


TYP BEAM OPENING DETAILS

REINF. ℄'S TO BE SAME GRADE OF STEEL AS BEAM (TYP.)

TYPICAL BEAM OPENING DETAILS

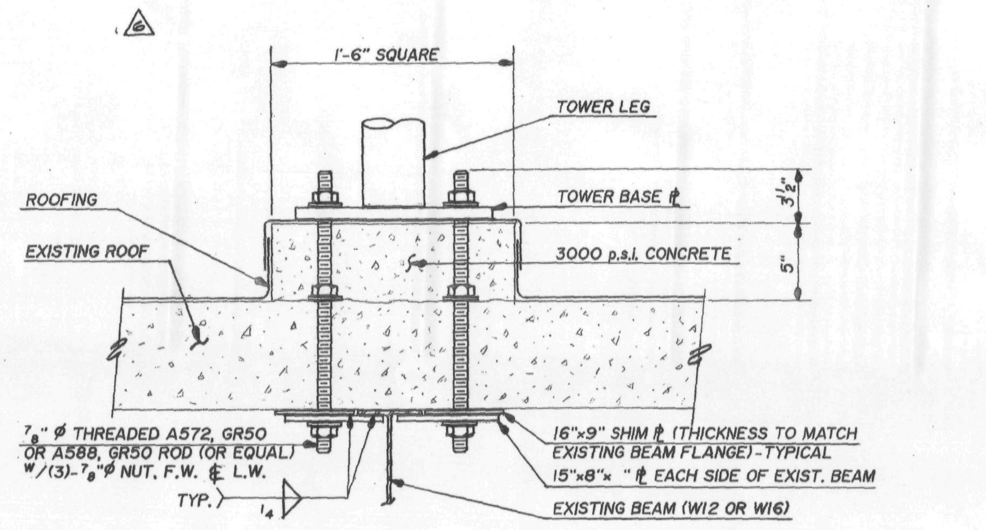
1. REINF. PL'S TO BE SAME GRADE OF STEEL AS BEAM (TYP.).
2. ALL FIELD CUT OPENINGS SHALL BE REINF. AS PER DETAILS SHOWN ABOVE, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.
3. DURING ALL FIELD CUTTING OF PENETRATIONS THRU BEAMS THE TEMPERATURE SHALL NOT EXCEED 600 DEGREES F AS MEASURED BY THE THERMOCOUPLES 6" FROM EDGE OF OPENING. @ FOUR CORNERS OF EACH OPENING.
4. NEW REINF. SHALL BE IN PLACE BEFORE CUTTING OPENING IN BEAM WEB.



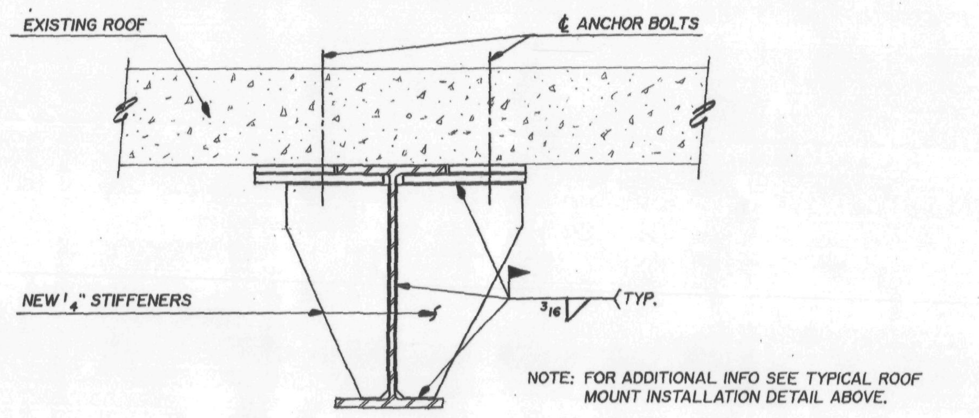
(CONTINUED):

19. WELD MINIMUM 2-⅜" FITTED STIFFENERS TO EXISTING BEAM SUPPORTING NEW STAIRHANGERS WHERE HANGERS ARE ECCENTRIC WITH RESPECT TO BEAM CENTER LINE.

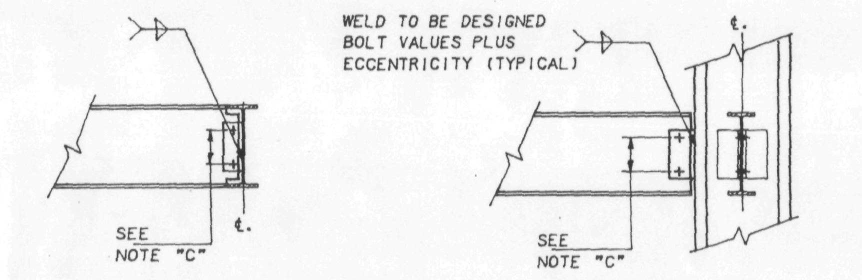
20. SHORE EXISTING BEAM WHERE FITTED STIFFENERS ARE WELDED TO EXISTING BEAMS.



TYPICAL ROOF MOUNT INSTALLATION DETAIL FOR MICROWAVE ANTENNA



TYPICAL STIFFENED DETAIL AT MICROWAVE ANTENNA STEEL SUPPORT

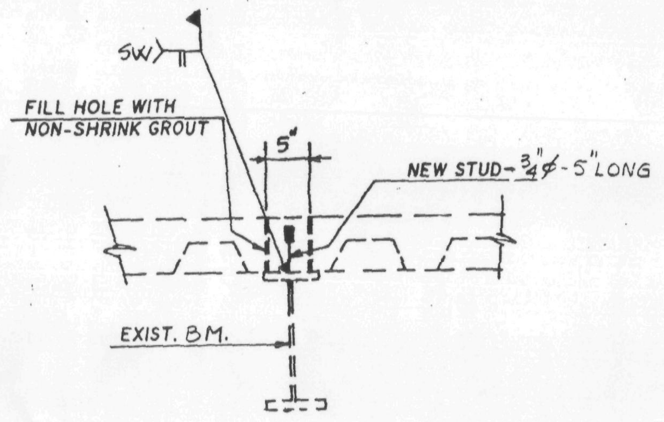


MIN. NO. OF BOLTS "N" SEE NOTE "C"	
BEAM SIZE *	"N"
W36	10
W33	9
W30	8
W27	7
W24	7
W21	6
W18	5
W16	4
W14	3
W12	3

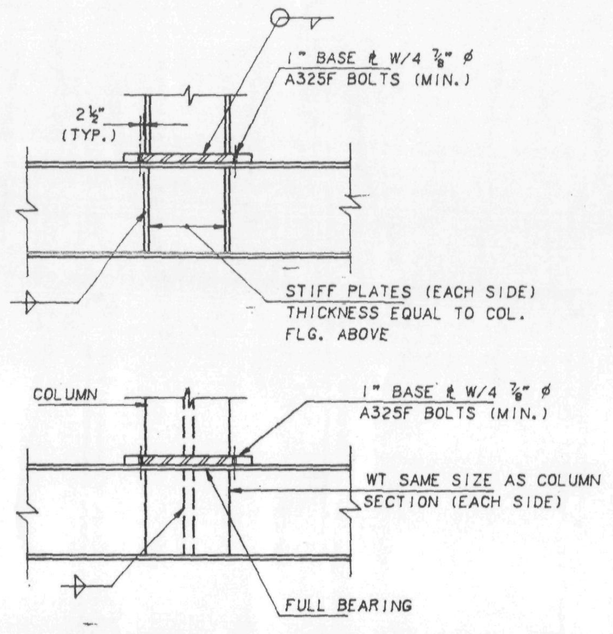
NOTES:

1. SHEAR CONNECTION MUST BE DESIGNED FOR THE GREATEST OF THE FOLLOWING:
   A. FOR COMPOSITE BEAMS - REACTIONS FROM AISC BEAM TABLE X 2.0 AT BEAMS F_y=50 ksi X 1.5 AT BEAMS F_y=36 ksi
   B. FOR NON-COMPOSITE BEAMS - REACTIONS FROM AISC BEAM TABLE X 1.5 AT BEAMS F_y=50ksi X 1.3 AT BEAMS F_y=36ksi
   C. MINIMUM SHEAR CONNECTIONS - SEE TABLE
   D. REACTIONS INDICATED ON DRAWINGS.
2. BOLTS SHALL BE ¾" Ø A325 FRICTION TYPE BOLTS MINIMUM (U.O.N.)
3. PROVIDE WEB REINFORCING WHERE REQUIRED DUE TO WEB CUT FOR CONNECTIONS.

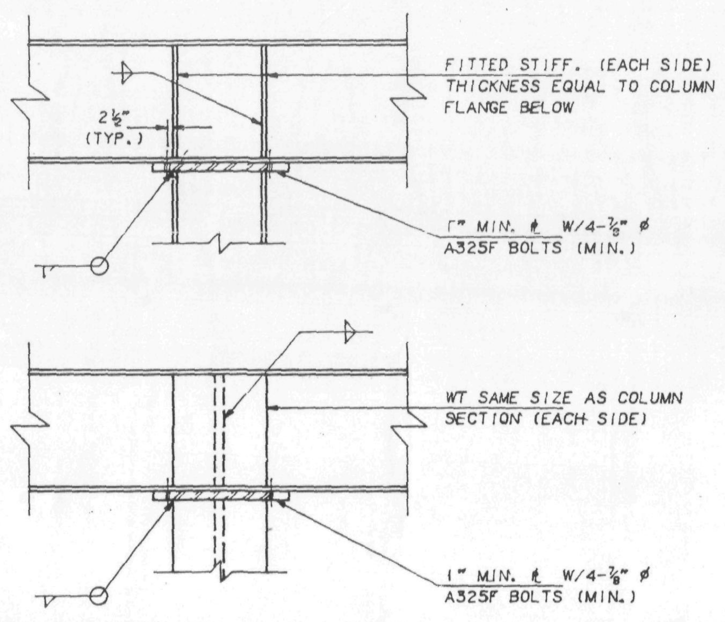
TYPICAL SHEAR CONNECTION DETAILS



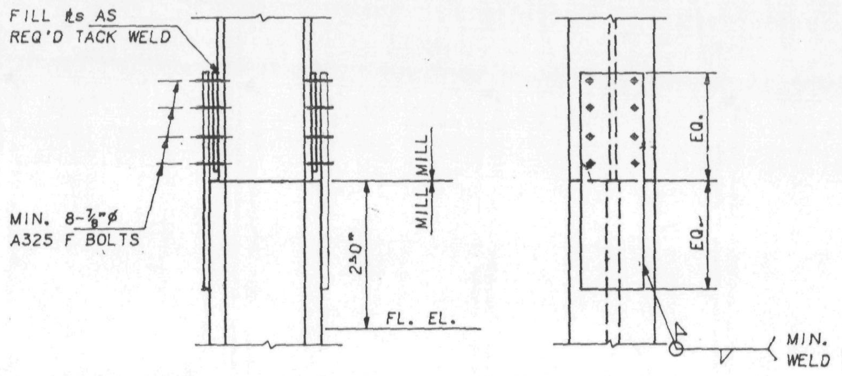
TYPICAL REINFORCING DETAIL OF EXIST. GIRDER OR BEAM



TYPICAL DETAIL FOR COLUMN OR POST PICK-UP



TYPICAL DETAIL FOR BEAM OVER COLUMN



TYPICAL COLUMN SPLICE DETAIL

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL BE ASTM A36 HAVING A MINIMUM YIELD POINT OF 36,000 PSI OR A572 GRADE 50 (SEE PLAN NOTES).
2. AISC SPECIFICATIONS FOR "DESIGN, FABRICATION & ERECTION OF STRUCTURAL STEEL" - LATEST EDITION SHALL APPLY, EXCEPT AS MODIFIED BY THE NOTES, SCHEDULES AND DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.
3. WELDING ELECTRODES SHALL CONFORM TO E70XX ELECTRODES.
4. ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS.
5. ALL WELDED CONNECTIONS SHALL CONFORM TO THE RECOMMENDATIONS OF AWS D1.1 AND THE NEW YORK CITY BUILDING CODE. PROVISIONS SHALL BE MADE FOR FIELD INSPECTION AND TESTING OF WELDS. ALL SHOP WELDS SHALL BE TESTED BY ANY OF THE APPROVED METHODS AND SHALL BE CERTIFIED.
6. ALL STEEL BOLTS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, LATEST EDITION: HIGH STRENGTH BOLTS A-325 AND UNFINISHED BOLTS A-307.
7. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM ON HOLES 13/16" DIAMETER UNLESS OTHERWISE NOTED.
8. ALL SHOP CONNECTIONS SHALL BE WELDED.
9. ALL COLUMN SPLICES, CONNECTIONS OF BEAMS TO COLUMNS, CONNECTIONS WITHIN 3 FEET OF COLUMNS AND CONNECTIONS OF BEAMS CARRYING MACHINE LOADS SHALL BE HIGH STRENGTH BOLTED AND WELDED IN THE FIELD. OTHER FIELD CONNECTIONS MAY USE UNFINISHED BOLTS EXCEPT WHERE SPECIFICALLY SHOWN OTHERWISE IN STRUCTURAL DRAWINGS. FIELD CONNECTIONS OF NEW CONSTRUCTION TO EXISTING CONSTRUCTION SHALL BE WELDED.
10. IN ADDITION TO MOMENT CONNECTIONS, PROVIDE MINIMUM SHEAR CONNECTIONS FOR ALL GRAVITY LOADS AS SHOWN ON TYPICAL SHEAR CONNECTION DETAILS.
11. ALL ENDS OF COLUMNS AT SPLICES AND AT OTHER BEARING CONNECTIONS SHALL BE MILLED TO COMPLETE TRUE BEARING.
12. MILLED STIFFENERS SHALL BE PROVIDED UNDER ALL COLUMN CONNECTIONS AND OVER ALL COLUMNS.
13. PROVISIONS SHALL BE MADE FOR CONNECTIONS OF OTHER TRADES INCLUDING CUTTING AND PUNCHING OF STRUCTURAL MEMBERS, WHERE REQUIRED BY THE DRAWINGS, OR FOR WHICH INFORMATION IS FURNISHED PRIOR TO FABRICATION.
14. THE USE OF CUTTING TORCH IN THE FIELD WILL BE PERMITTED ONLY AFTER SECURING ENGINEER'S APPROVAL.
15. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN PLUMBNESS AND STABILITY DURING ERECTION.
16. CONTRACTOR SHALL PROVIDE STIFFENERS PER SECTION 1.15.5 OF AISC SPECIFICATIONS REGARDING THE NEED FOR COLUMN STIFFENERS.
17. ALL WELDERS TO BE LICENSED BY THE CITY OF NEW YORK.
18. FOR PAINTING OF STRUCTURAL STEEL SEE SPECIFICATIONS.

STEEL DECK NOTES:

1. STEEL DECK SHALL CONFORM TO THE CURRENT SPECIFICATIONS FOR THE DESIGN OF LIGHT GAUGE COLD FORMED STEEL STRUCTURAL MEMBERS PER AISI.
2. DECK SHALL BE ANCHORED BY WELDING THROUGH THE BOTTOM OF THE RIB TO STRUCTURAL STEEL AT MAXIMUM SPACINGS OF 12" WITH MINIMUM BEARING OR END LAP OF 2".
3. OPENING IN DECK SHALL BE TREATED AS FOLLOWS:
   A. FOR HOLES 6" OR LESS, PERPENDICULAR TO SPAN. NO REINFORCING REQUIRED.
   B. FOR HOLES OVER 6" BUT NOT MORE THAN 10". PROVIDE ONE 14 GAUGE REINFORCING PLATE 24" X 24" AND WELD IN PLACE.
   C. ALL OTHER OPENINGS TO BE FRAMED AS SHOWN ON PLAN.
4. STEEL DECK SHALL BE AS NOTED ON FRAMING PLAN.

SUPERSTRUCTURE CONCRETE NOTES:

1. ALL CONCRETE OVER METAL DECK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS U.O.N.
2. ALL CONCRETE IS TO COMPLY WITH ALL REQUIREMENTS OF CURRENT ACI CODE AND ALL OTHER RELEVANT SECTIONS OF THE NEW YORK CITY BUILDING CODE.
   A. PRELIMINARY TESTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND THE PORT AUTHORITY FOR REVIEW. NO CONCRETE SHALL BE PLACED BEFORE SUCH REVIEW HAS BEEN COMPLETED.
   B. LABORATORY TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND THE PORT AUTHORITY.
3. CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, ANCHOR BOLTS, ETC., AS REQUIRED BY ALL TRADES BEFORE CONCRETE IS PLACE.
4. ALL STRUCTURAL DRAWINGS SHALL BE WORKED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND ANY DISCREPANCIES SHALL BE COORDINATED WITH THE ARCHITECT.
5. NO DEVIATION FROM THE STRUCTURAL PLANS SHALL BE PERMITTED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE STRUCTURAL ENGINEER. ALL REINFORCING DETAILS TO BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL.
6. TRANSPORTING, PLACING, CURING AND DEPOSITING CONCRETE SHALL COMPLY WITH THE NEW YORK CITY BUILDING CODE AND THE ACI BUILDING CODE.

GENERAL NOTE:

CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS. THIS VERIFICATION SHALL INCLUDE A SURVEY BY A LICENSED SURVEYOR AND FIELD INVESTIGATIONS TO DETERMINE THE LOCATIONS AND ELEVATIONS OF THE EXISTING STRUCTURAL STEEL. THE LOCATION AND ELEVATIONS OF EXISTING SLABS SHALL ALSO BE VERIFIED. THE CONTRACTOR SHALL SUBMIT A WRITTEN REPORT AND SURVEY TO THE ENGINEER FOR HIS REVIEW AND/OR INSTRUCTIONS OF ACTUAL FIELD CONDITIONS WHICH MAY VARY FROM INFORMATION INDICATED ON THE DRAWINGS. THESE REPORTS WILL ALSO INCLUDE EXISTING CONDITIONS NOT SHOWN ON THE DRAWINGS WHICH MAY REQUIRE A REVISION OF THE INFORMATION ON THE DRAWINGS.

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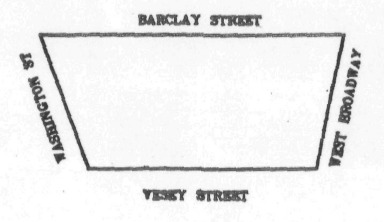

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
	6.9.95	AS BUILT—REF. REV. 6/11.5.93
	8/23/94	ISSUED FOR TENANT ALTERAT.
	7/22/94	RESPONSE TO P.A. COMMENTS
8	5/25/94	RESPONSE TO P.A. COMM.TS
7	4/6/94	REVISED AS CIRCLED
6	11/5/93	REVISED AS CIRCLED
5	10/4/93	CHILLED WATER LINE RELOCATION
4	6/2/93	ISSUED FOR ADDENDUM No. 1
3	5/21/93	ISSUED FOR TENANT ALTERATIONS
2	4/6/89	REVISED AS CIRCLED
1	3/1/89	REVISED, AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	12/19/88	SUBMITTED TO P.A.
	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS
	10/31/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP.

STATE OF NEW YORK · IRWIN G. CANTOR · No. 32548 · LICENSED PROFESSIONAL ENGINEERS

TYPICAL SUPERSTRUCTURE DETAILS & GENERAL NOTES

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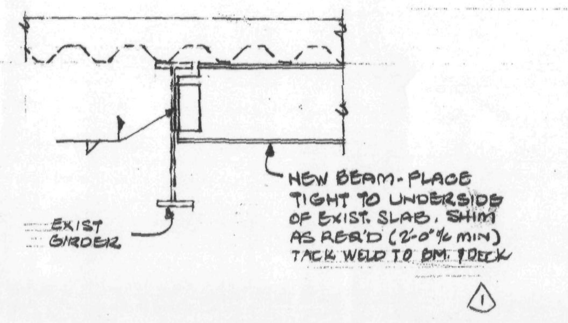
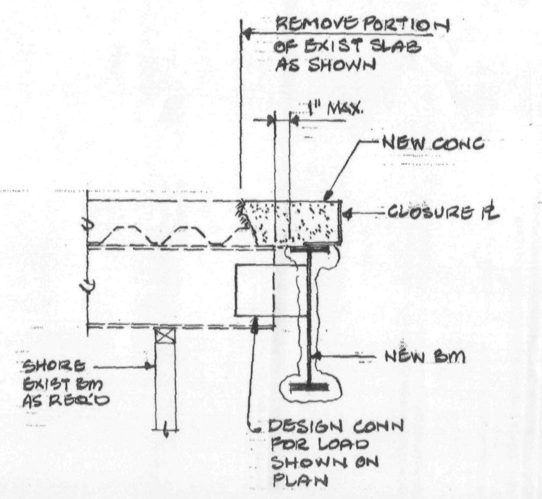
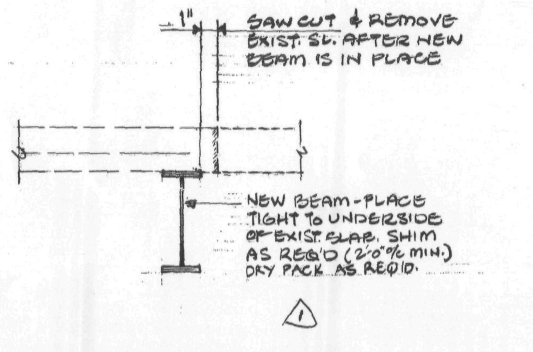
Project No.:
Date:
Scale:
Sheet No. S-32



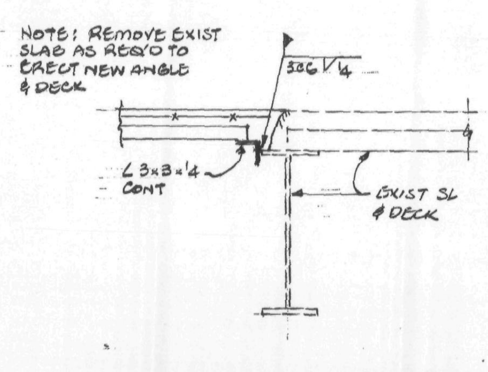
TYPICAL NEW BEAM TO EXIST. BEAM CONN DETAIL



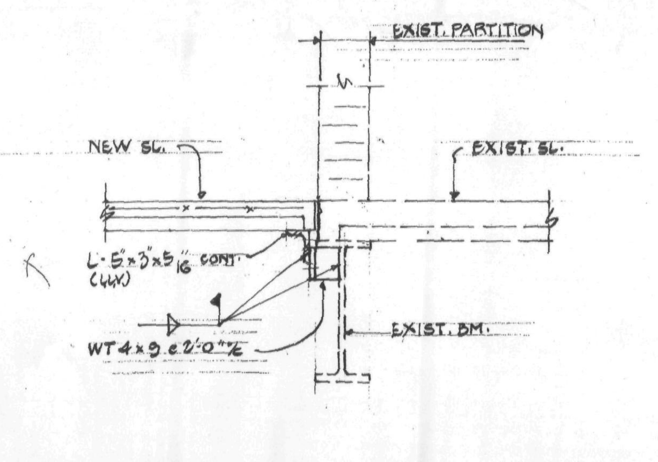
TYPICAL EXIST BEAM TO NEW BEAM CONN. DETAIL



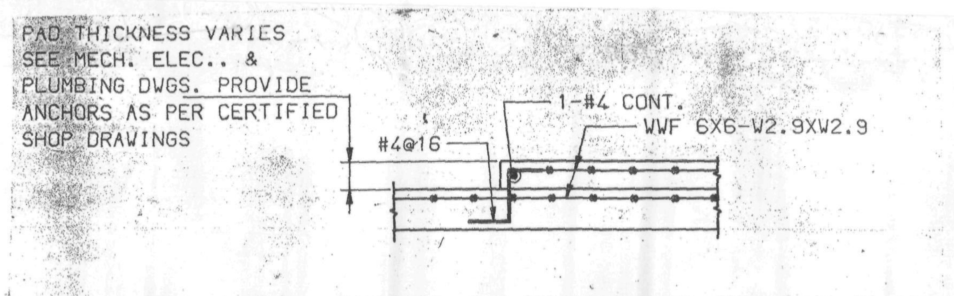
TYPICAL SLAB EDGE AT NEW OPNG. DETAIL



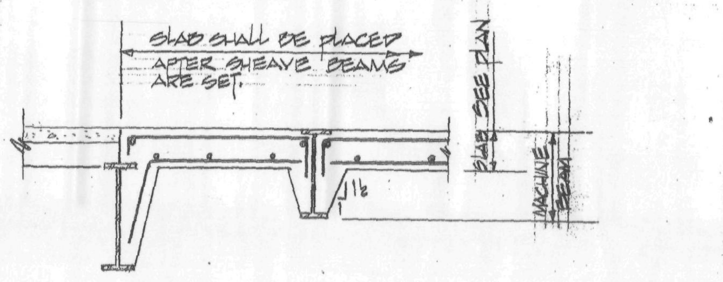
TYPICAL EXIST. OPENING CLOSURE DETAIL
(FOR DECK ORIENTATION SEE PLAN)



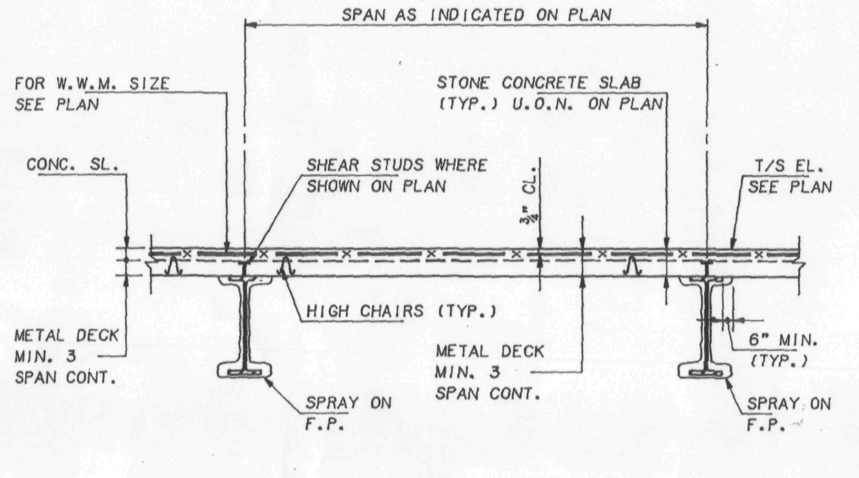
TYPICAL EXIST OPENING DETAIL WHERE EXIST PARTITIONS REMAIN
(FOR DECK ORIENTATION SEE PLAN)



TYP. DETAIL OF EQUIPMENT PAD ON SLAB

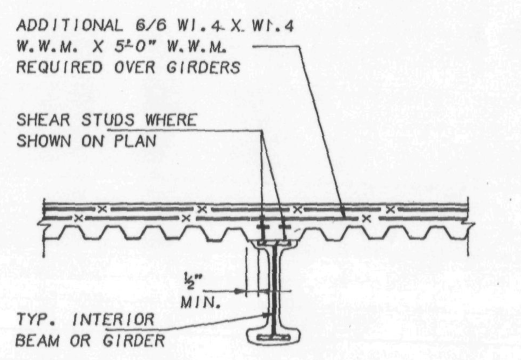


TYP. MACH. ROOM SLAB DET.

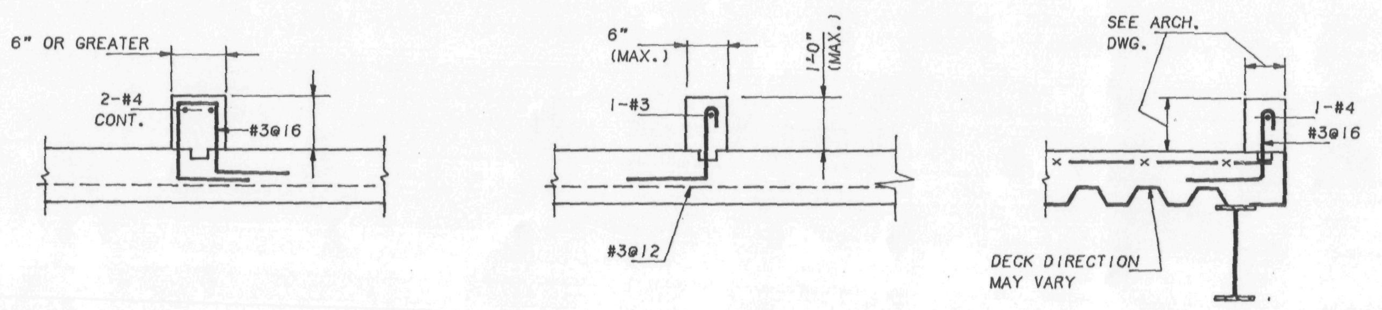


NOTE: ALL SINGLE SPAN DECK MUST BE SHORED.

TYPICAL FLOOR DETAIL

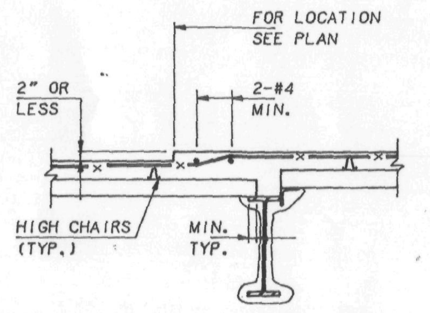


DETAILS PERPENDICULAR TO FLOOR SPAN

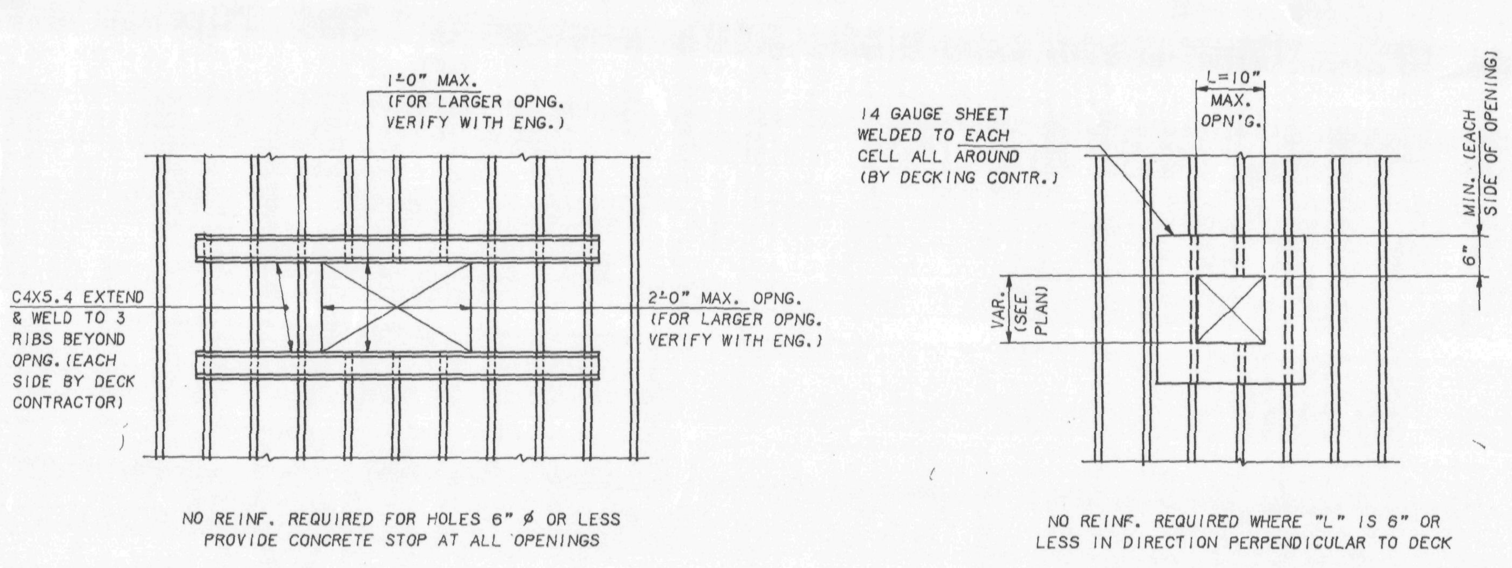


TYPICAL CONCRETE CURB DETAILS

NOTE: FOR LOCATION SEE ARCH. DWGS



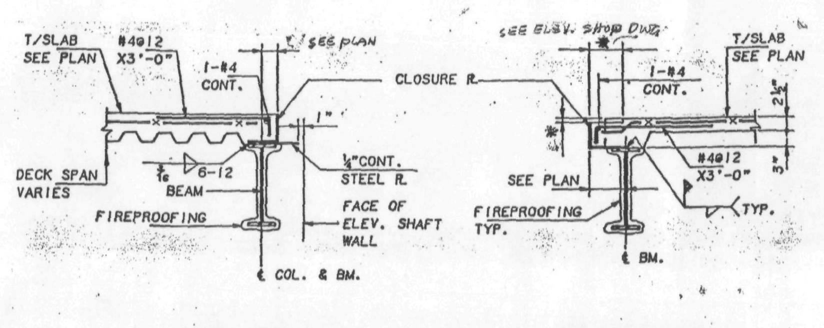
TYP. DROP IN SLAB DETAIL



FOR OPENINGS TO 2'-0" PERPENDICULAR TO DECK

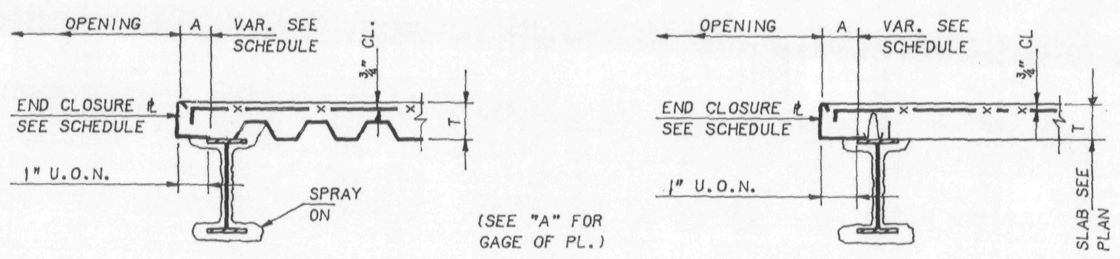
FOR OPENINGS TO 10" PERPENDICULAR TO DECK

TYPICAL FLOOR DETAILS AT OPENINGS



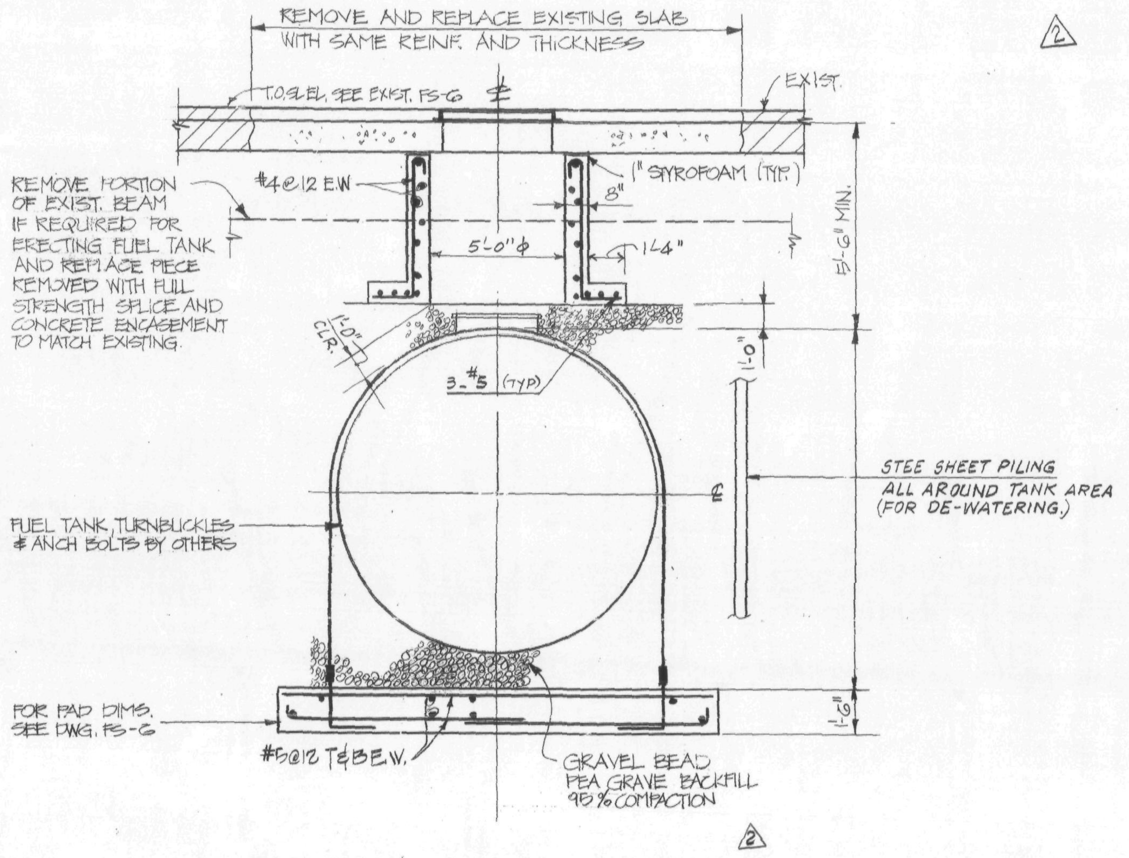
TYP. SECT. AT BACK OF ELEVATOR

TYP. SECTION AT ELEVATOR DOOR

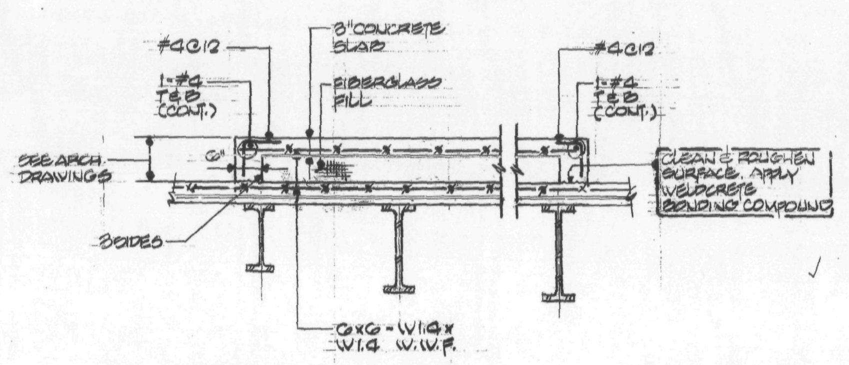


TYPICAL DETAILS OF BEAMS AT OPENING

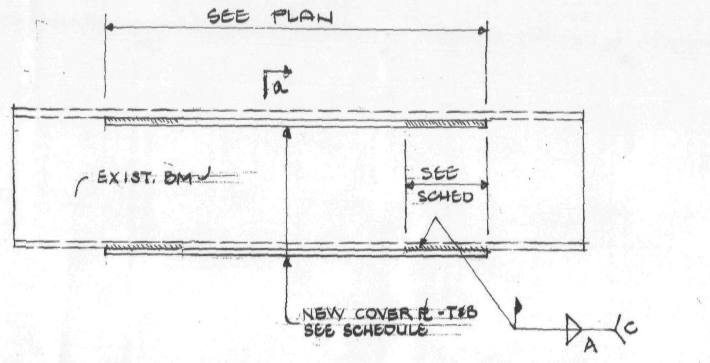
T=5½"		T=8"		REMARKS
A	GAGE OF PLATE	A	GAGE OF PLATE	
UP TO 4"	14	UP TO 3½"	12	
4" TO 8"	12	4" TO 7"	10	
8" TO 10"	10			



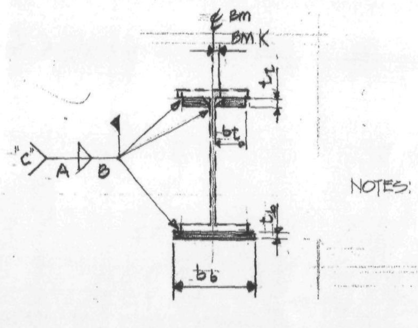
TYP. SECTION @ NEW FUEL TANK
(@ 1ST. FLOOR LOADING DOCK-FOR LOCATION SEE MECH. AND ARCH. DWG'S)



RAISED SLAB DETAIL



TYPICAL COVER PLATE REINF. DETAIL

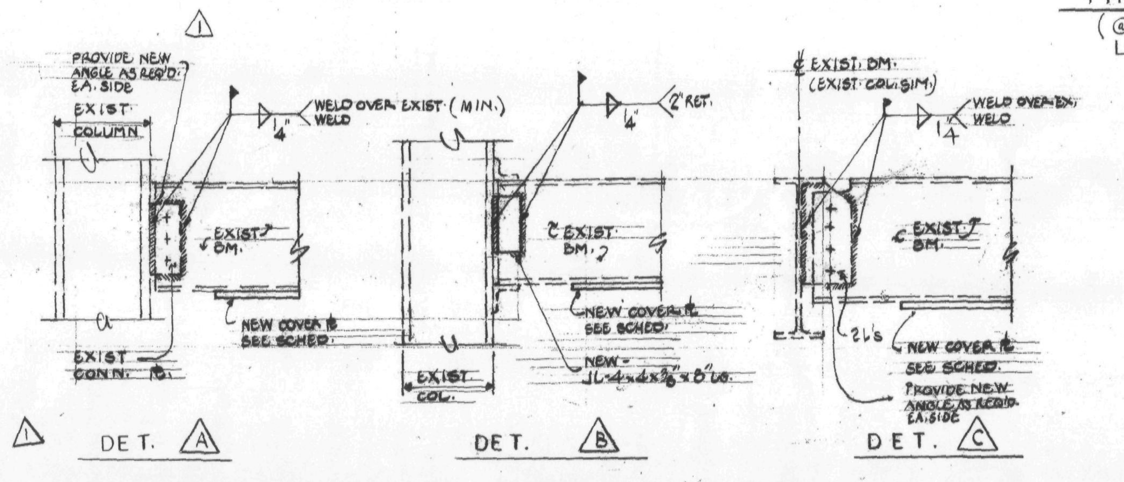


SECT "a-a"

NOTES: ALL NEW PLATES TO BE Fy=50KSI UNLESS OTHERWISE SHOWN ON PLAN.

NEW COVER PL SHEDULE

MARK	BOTTOM FLANGE $b_b \times t_b$	TOP FLANGE $2\text{-}b_t \times t_t$	FILLET WELD "A"	INTERMITTENT WELD SPACING "B"	CONT. TERMINATION WELD AT EACH END "C"	REMARKS
CP1	8x1½	2-2¾x1	¼	6@12	1'-6"	
CP2	8x1¼	2-2¾x1	¼	6@12	1'-6"	
CP3	8x1	2-2¾x1	¼	6@12	1'-6"	
CP4	8x¾	—	¼	6@12	1'-4"	
CP5	5x½	—	¼	6@12	1'-0"	
CP6	8x1	—	¼	6@12.	1'-6"	
CP7	11x½	2-2¾x1	¼	6@12	1'-10"	
CP8	8x½	—	¼	6@12	1'-4"	
CP9	7x½	—	¼	6@12	1'-2"	
CP10	11x2	2-3½x1½	5/16 (2)	6@12	1'-10"	
CP11	12x1½	2-4x2	5/16	6@12	2'-0"	
CP12	12x1½	2-4x2	5/16	6@12	2'-0"	
CP13	6x¾	—	¼	6@12	1'-0"	
CP14	11x¾	—	¼	6@12	(3) 1'-6"	
CP15	12x¾	—	¼	6@12	2'-0"	
CP16	18x1	—	5/16	6@12	3'-0"	
CP17	7x⅝	—	¼	6@12	1'-2"	
CP18	10x1¼	2-2¾x1¼	5/16	6@12	1'-8"	
CP19	10x1½	2-2¾x1¼	5/16	6@12	1'-8"	
CP20	8x1	2-2¾x1	5/16	6@12	1'-8"	
CP21	14x1½"	—	5/16	6@12	2'-4"	
CP22	14x1¼	2-2¾x1¼	5/16	6@12	2'-4"	
CP23	14x1½	—	5/16	6@12	2'-4"	Fy=36ksi
CP24	10x1	—	5/16	6@12	1'-8"	
CP25	7½x1	2-2x1¼	5/16	CONT.	1'-3"	
CP26	6x¾	2-1½x¾	5/16	6@12	1'-0"	
CP27	14x1½	2-4x2	5/16	6@12	2'-4"	



TYPICAL EXIST. CONNECTION REINF. DETAILS AT COVER PLATED BEAMS

1. CONNECTION REINFORCEMENT TO BE DESIGNED BASED ON LRFD HAND BOOK FOR ULTIMATE LOAD AS SHOWN ON PLAN OR MINIMUM AS SHOWN ON DETAIL.
2. ADD ADDITIONAL ANGLES OR PLATE AS REQ'D TO REINFORCE CONNECTION

NOTES

LEGEND

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048

BARCLAY STREET
WEST BROADWAY
VESEY STREET
KEY PLAN

No.	Date	Revision
4	8-10-89	ISSUED FOR FIELD SKETCH
3	5-22-89	REVISED AS CIRCLED
2	4/6/89	REVISED AS CIRCLED
1	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	12/17/88	SUBMITTED TO P.A.
	11/21/88	ISSUED TO PORT AUTHORITY FOR APPROVAL OF BASIC BUILDING MODIFICATIONS
	10/31/88	ISSUED TO PORT AUTHORITY FOR APPROVAL OF BASIC BUILDING MODIFICATIONS
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATION

SOM SKIDMORE, OWINGS & MERRILL ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE SEINUK GROUP

SUPERSTRUCTURE SECTIONS #1

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Scale:
Sheet No. S-34

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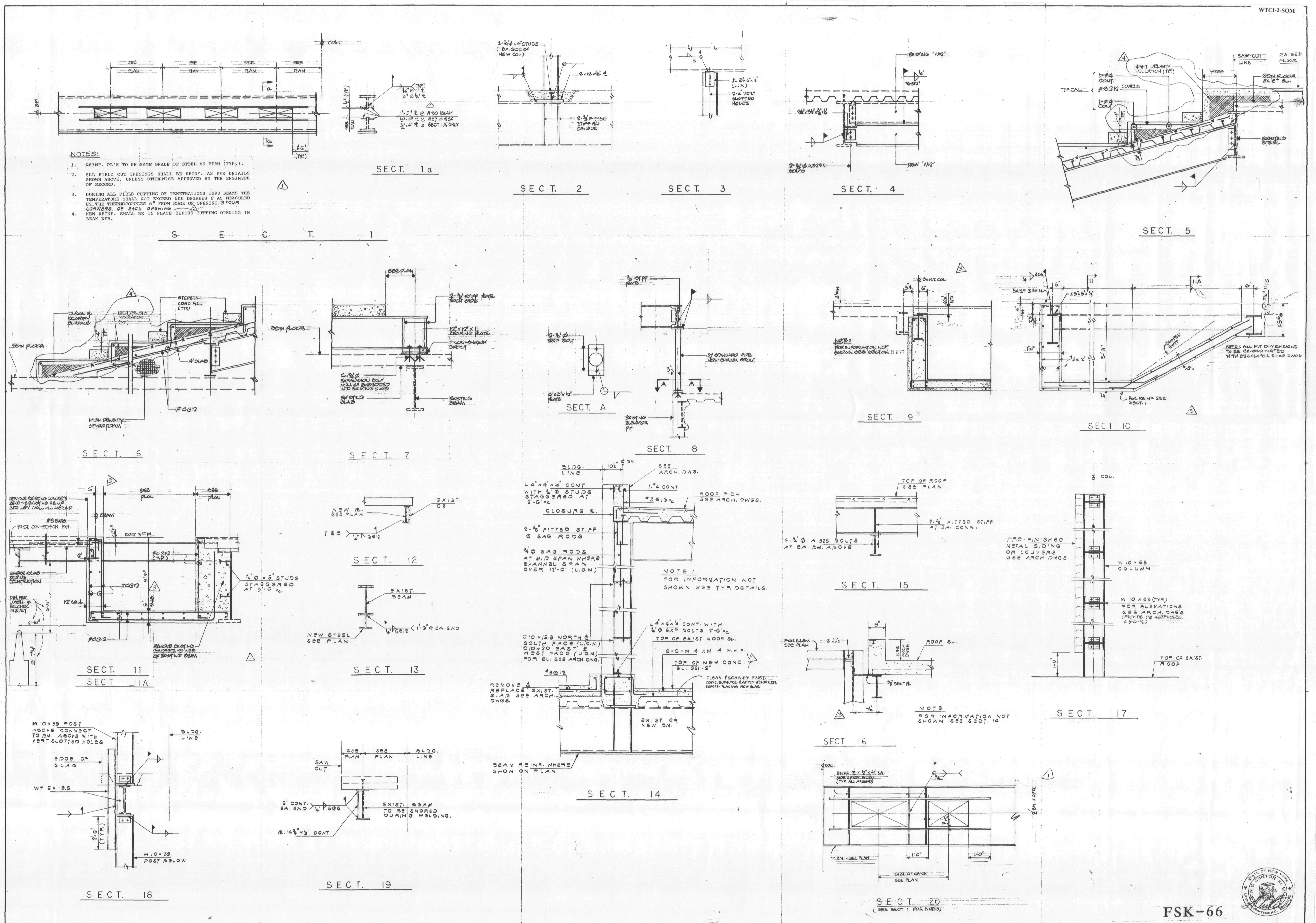

NOTES:

1. REINF. PL'S TO BE SAME GRADE OF STEEL AS BEAM (TYP.).
2. ALL FIELD CUT OPENINGS SHALL BE REINF. AS PER DETAILS SHOWN ABOVE, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.
3. DURING ALL FIELD CUTTING OF PENETRATIONS THRU BEAMS THE TEMPERATURE SHALL NOT EXCEED 600 DEGREES F AS MEASURED BY THE THERMOCOUPLES 6" FROM EDGE OF OPENING @ FOUR CORNERS OF EACH OPENING
4. NEW REINF. SHALL BE IN PLACE BEFORE CUTTING OPENING IN BEAM WEB.

FSK-66

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
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KEY PLAN

NOTES

LEGEND

No.	Date	Revision
4	8-10-89	ISSUED FOR FIELD SKETCH
3	5-22-89	REVISED AS CIRCLED
2	4/6/89	REVISED AS CIRCLED
1	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	12/19/88	SUBMITTED TO P.A.
	11/21/88	ISSUED TO PORT AUTHORITY FOR APPROVAL OF BASIC BUILDING MODIFICATIONS
	10/31/88	ISSUED TO PORT AUTHORITY FOR APPROVAL OF BASIC BUILDING MODIFICATIONS
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

SUPERSTRUCTURE SECTIONS #1

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Date: | S-34
Scale:

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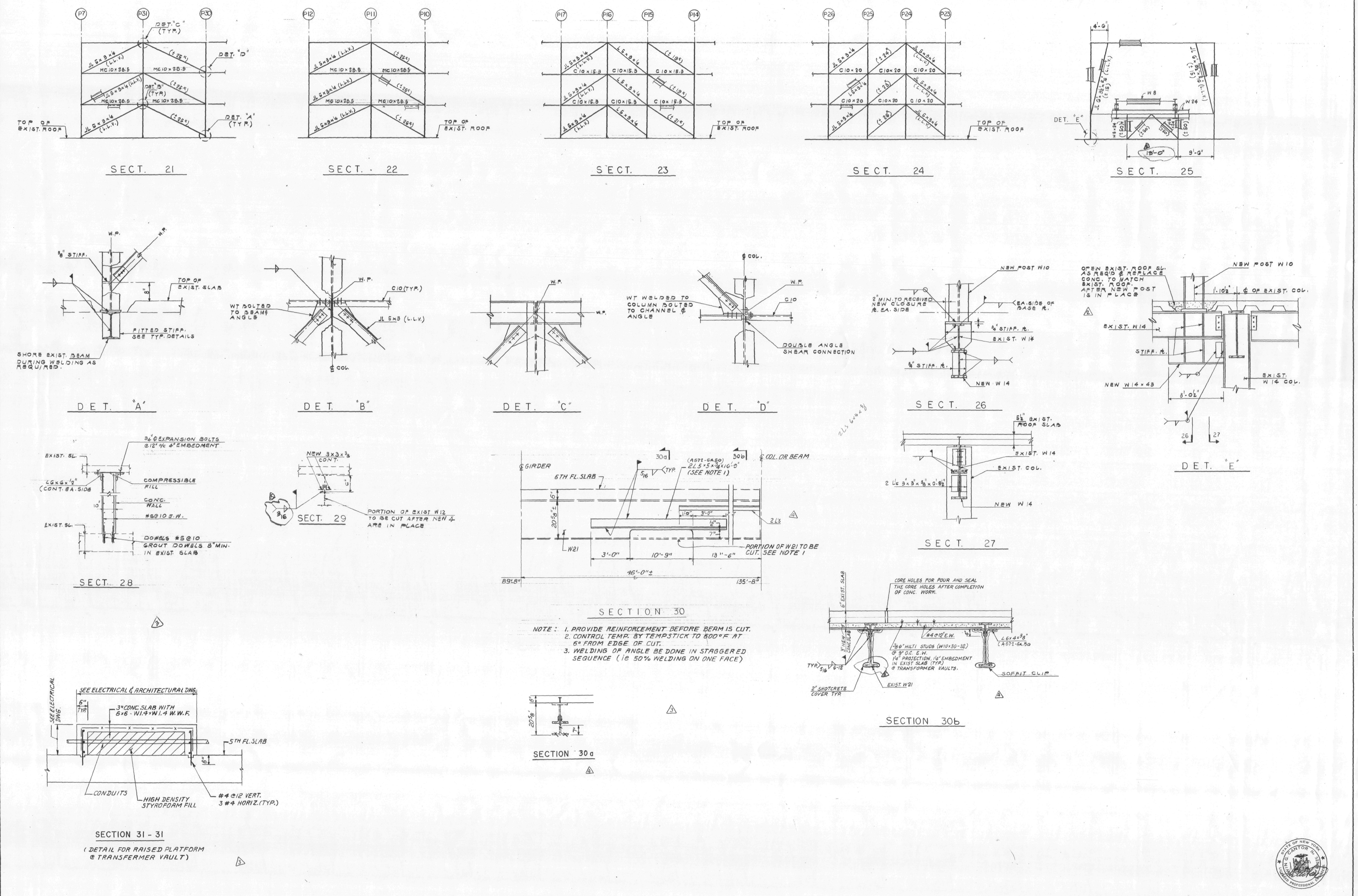

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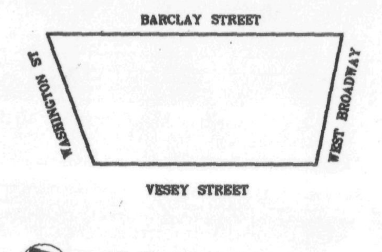

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
5	8/15/89	REVISED AS CIRCLED
4	5-22-89	REVISED AS CIRCLED
3	4-6-89	REVISED AS CIRCLED
-	4-4-89	ISSUED FOR CON EDISON APPROVAL
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

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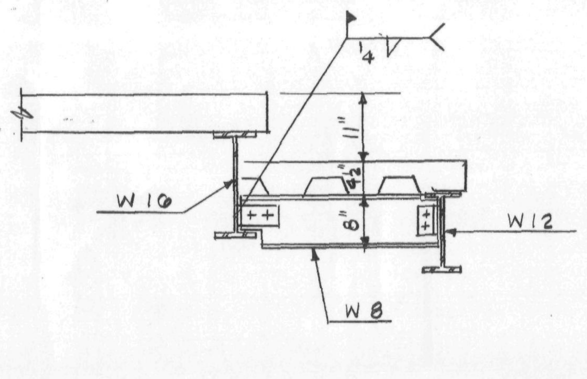
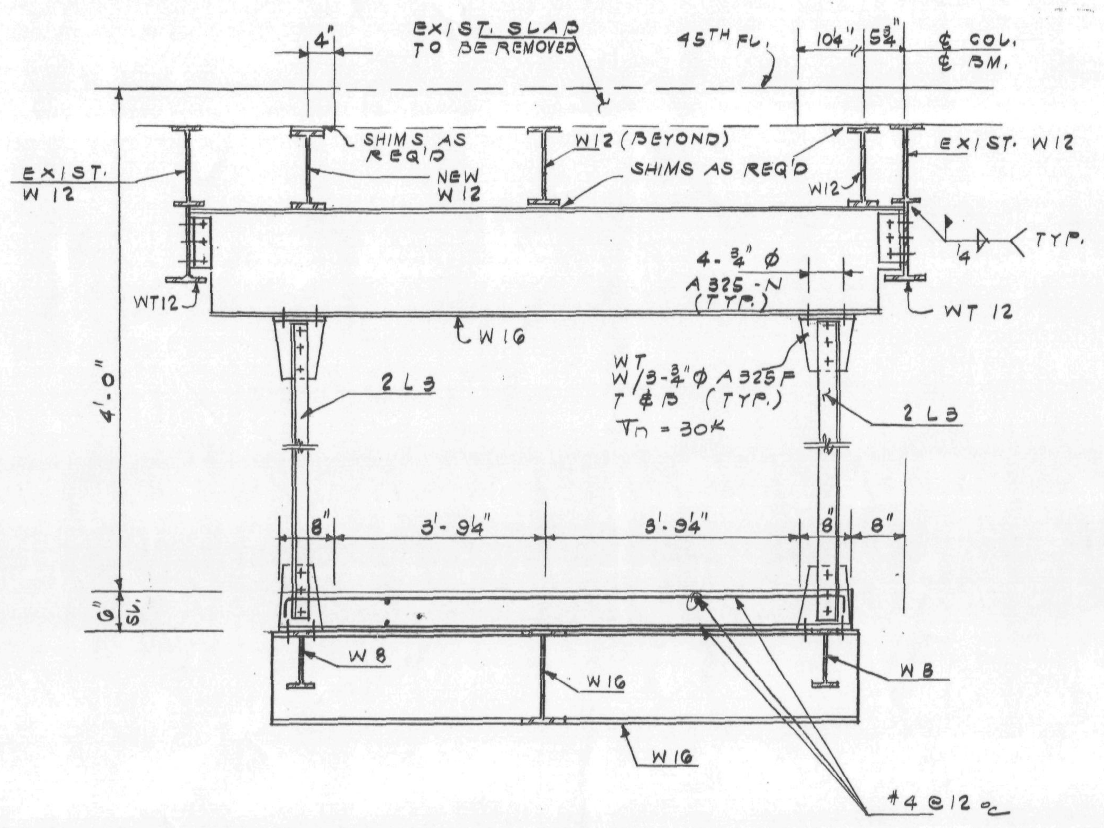


SECT. 32
(SECTION AT 41 & 43RD FL. BALCONY)



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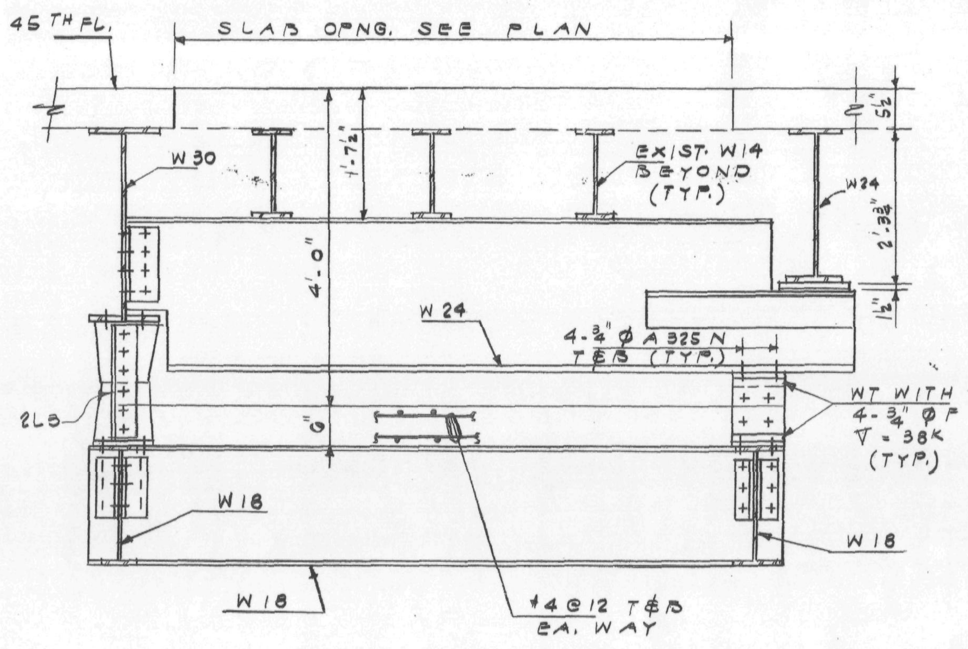

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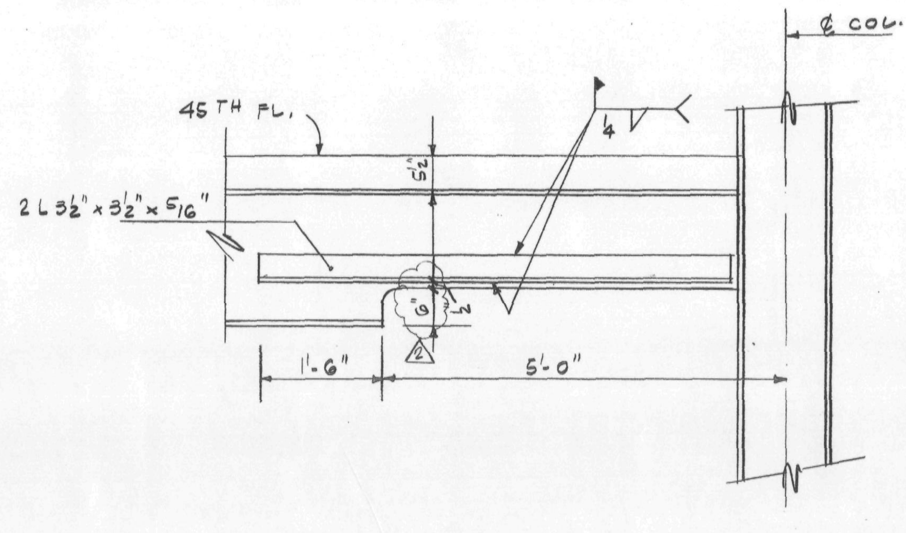

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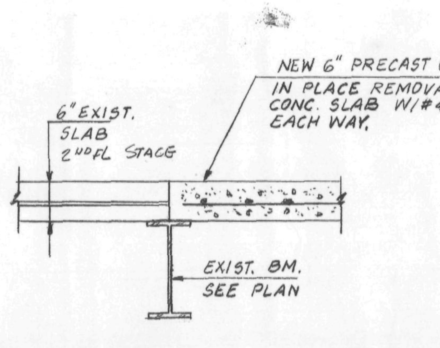

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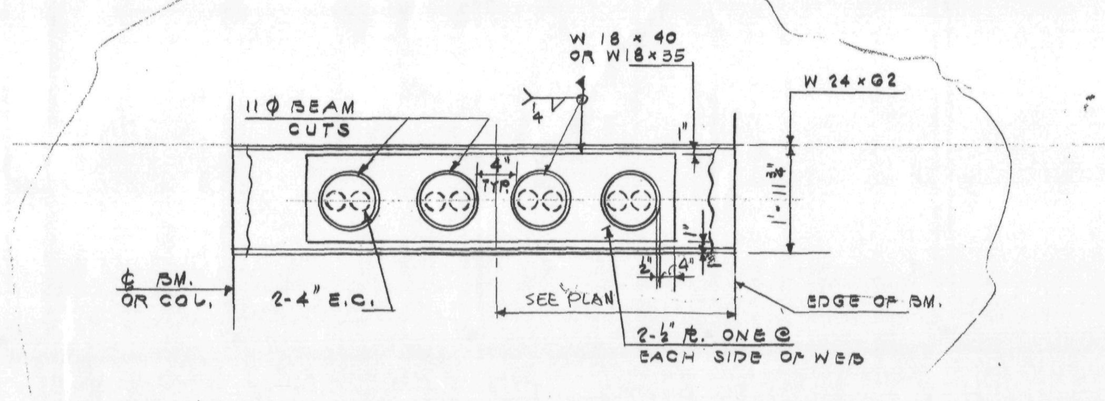

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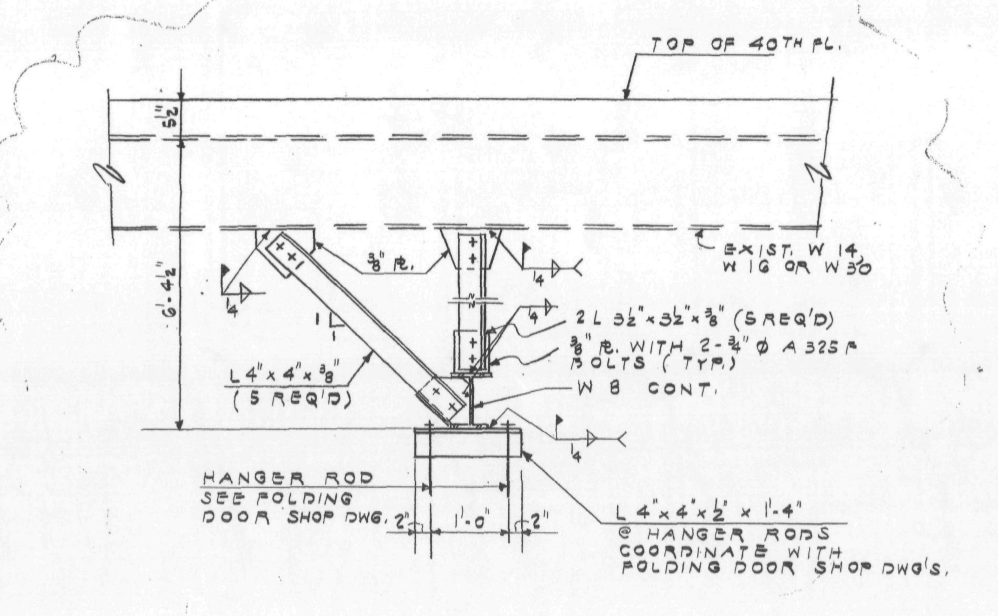

SECT. 38

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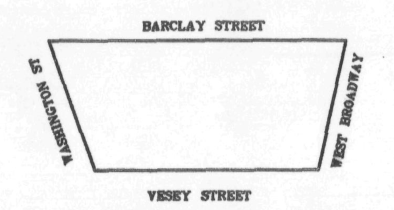

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
3	3/30/90	REVISED AS CIRCLED
2	8/18/89	REVISED AS CIRCLED
1	5-28-89	REVISED AS CIRCLED
	4-6-89	

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
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SUPERSTRUCTURE SECTIONS #3

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Project No.: Sheet No.:
Date:
Scale:

S-36

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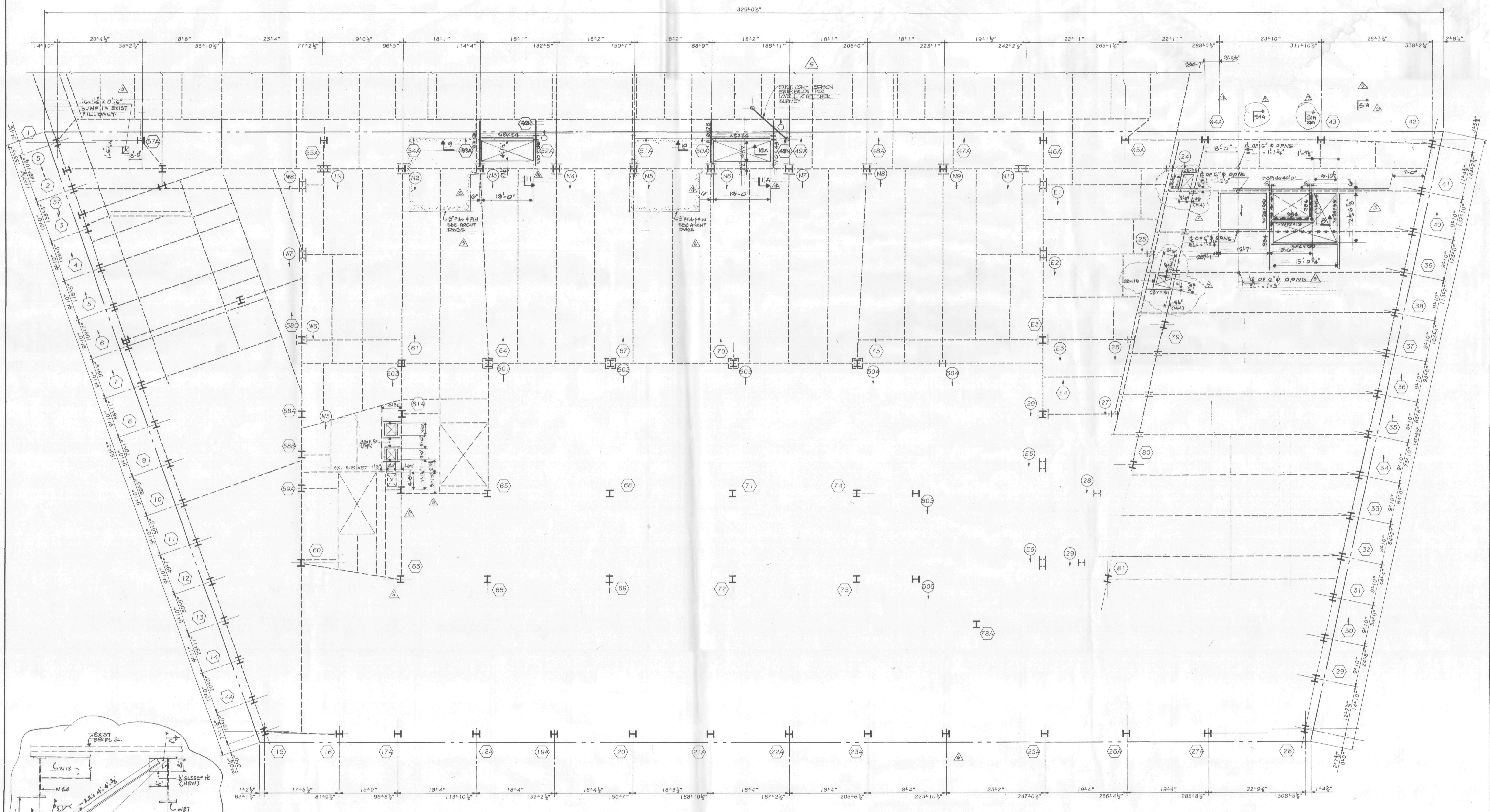
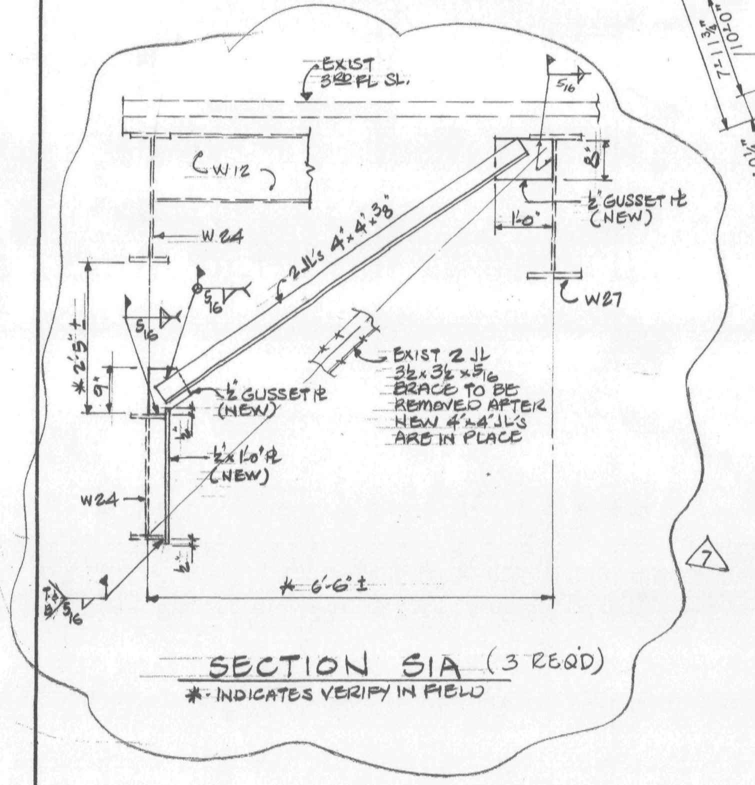


3RD FLOOR FRAMING PLAN



SECTION S1A (3 REQ'D)
*- INDICATES VERIFY IN FIELD

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. EL.± --- FROM TOP OF STEEL BEAM (3)
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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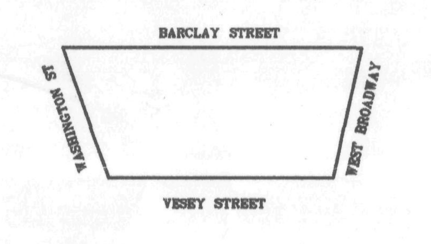

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
7	10-9-89	REVISED AS CIRCLED
6	8-15-89	REVISED AS CIRCLED
5	5/22/89	REVISED AS CIRCLED.
4	5/22/89	REVISED AS CIRCLED
3	4/6/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONSTRUCTION
1	12/19/88	SUBMITTED TO PA FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

3RD FLOOR
FRAMING PLAN

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Project No.:
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Scale:
Sheet No. S-1

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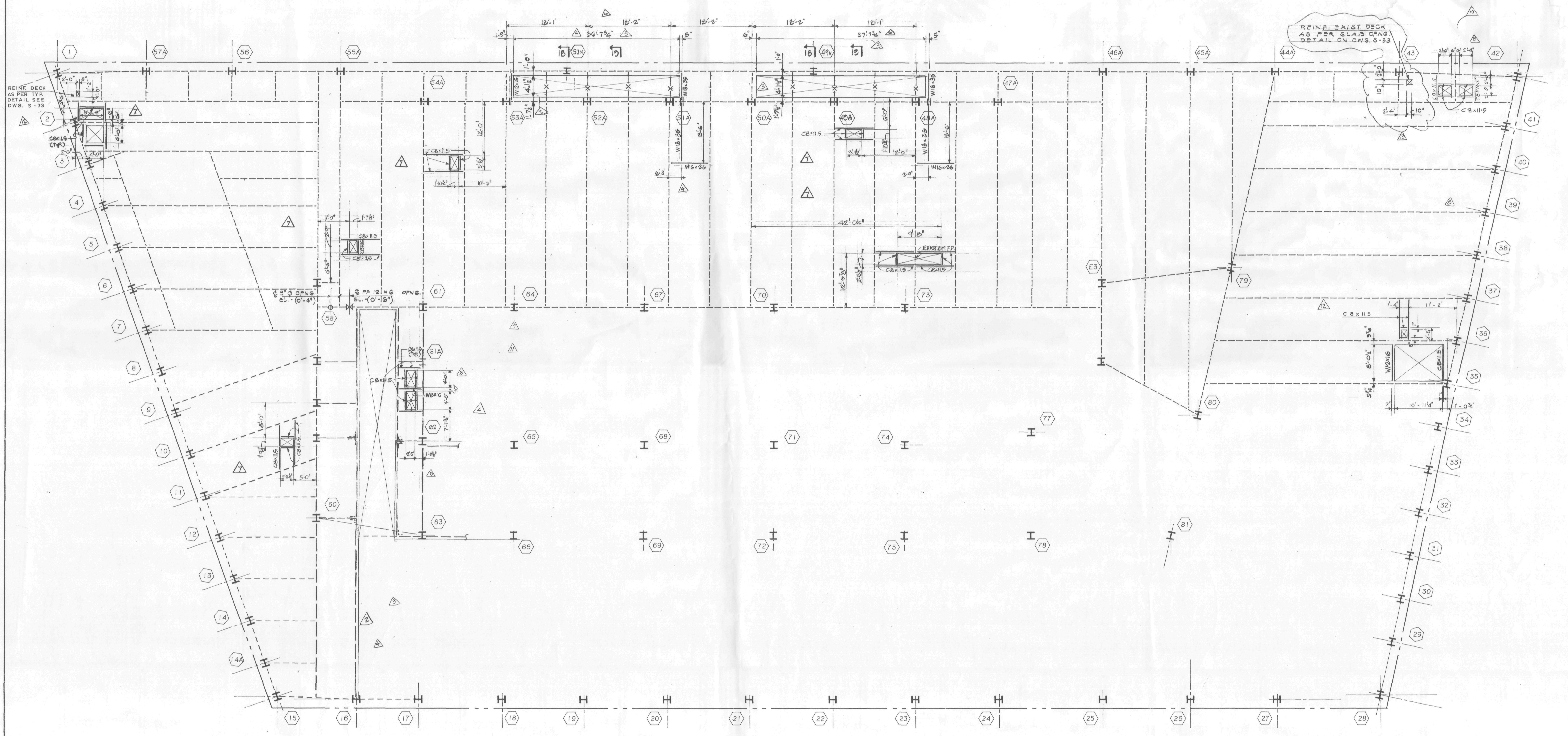

4TH FL. FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. [X] INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. ⬡..N INDICATES NEW POST OR COLUMN.
10. —⧖— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS ±----- FROM TOP OF STEEL BEAM
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

4

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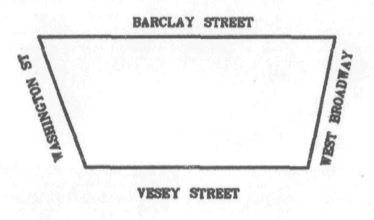

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
13	8-17-90	ISSUED FOR BULLETIN #116
12	6-7-90	ISSUED AS BULLETIN No 94
11	2/12/90	ISSUED FOR BULLETIN NO. 58
10	1/26/90	ISSUED FOR BULLETIN NO 45
9	10/9/89	REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	8/10/89	ISSUED FOR FIELD SKETCH
6	5/22/89	REVISED AS CIRCLED
5	5/22/89	REVISED AS CIRCLED
4	4/6/89	REVISED AS CIRCLED
3	1/20/89	REVISED AS CIRCLED
2	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO PA FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

4TH FLOOR
FRAMING PLAN

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Project No.:
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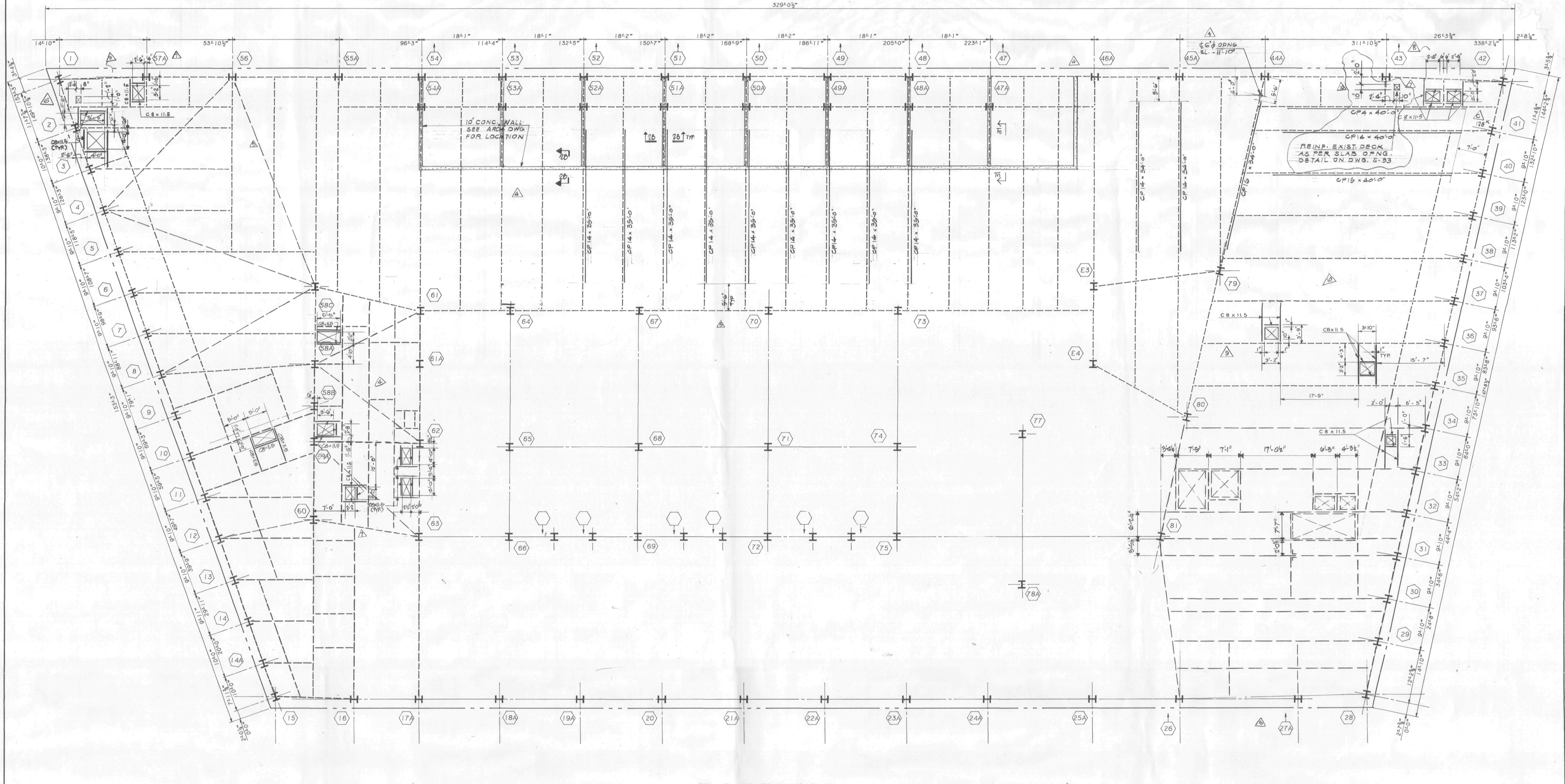
Scale:
Sheet No. S-2

88057



5TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 14" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
12. △ INDICATES TYPE OF EXISTING CONNECTION REINF. DETAIL, SEE DETAIL ON DWG. S-33

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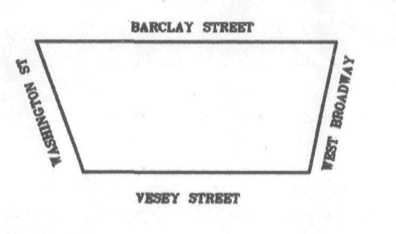

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10	8-17-90	ISSUED FOR BULLETIN #116
9	6-7-90	ISSUED FOR BULLETIN No 94
8	1/20/90	ISSUED FOR BULLETIN NO. 45
7	8/15/89	REVISED AS CIRCLED
6	8/10/89	ISSUED FOR FIELD SKETCH
5	5/22/89	REVISED AS CIRCLED
4	4-6-89	REVISED AS CIRCLED
	4-1-89	ISSUED TO CON EDISON FOR APPROVAL
3	3/1/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/22/88	REV. AS CIRCLED
	12/19/88	SUBMITTED TO B.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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5TH FLOOR FRAMING PLAN

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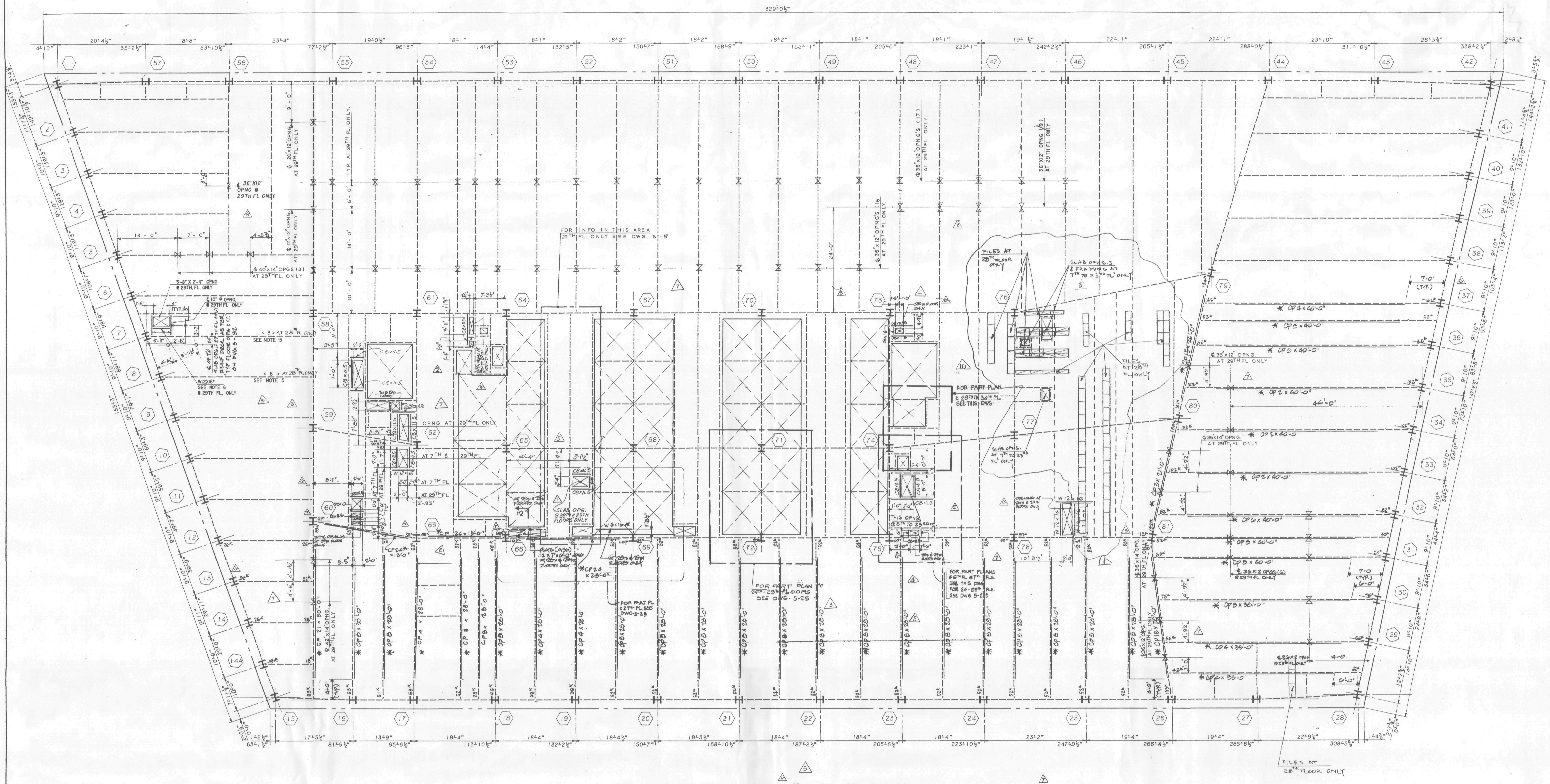
WTCI-2-SOM

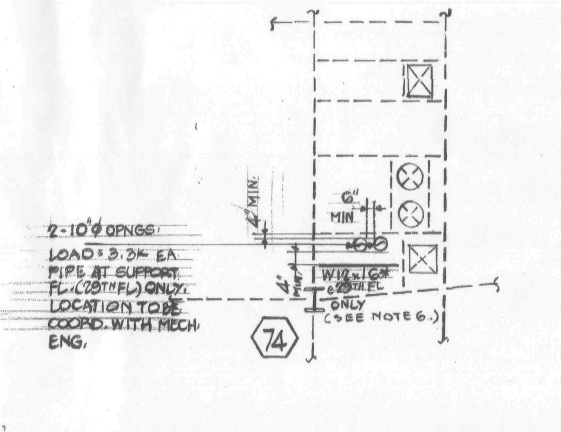


TYPICAL FLOOR FRAMING PLAN - 7TH TO 29TH FLOORS

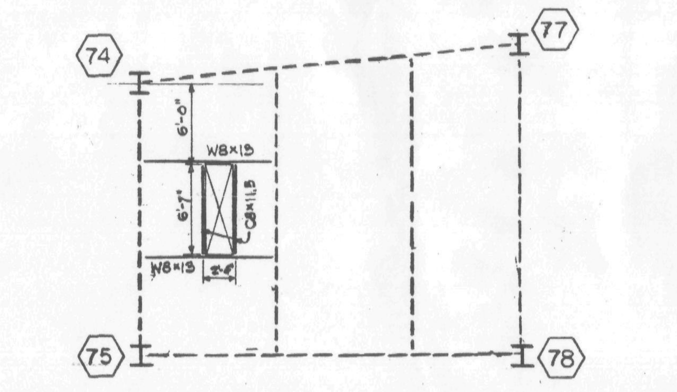
7TH TO 14TH FLOORS AS SHOWN - 15TH TO 29TH FLOORS SIM.

NOTES:

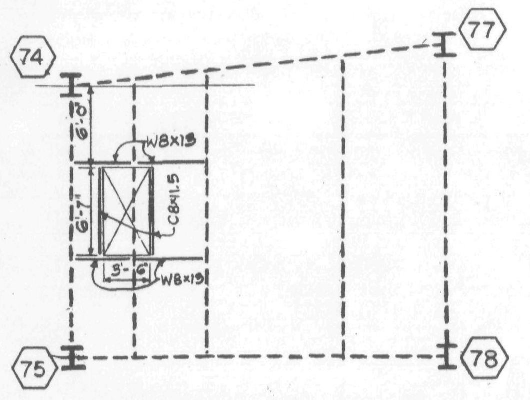
1. FOR NOTES NOT SHOWN SEE DWG. S-2
2. FOR PART PLANS AT 6TH FL. SEE DWG. S-25
3. ADDITIONAL EXIST. BEAM REINF. PLATES NOTED WITH AN ASTERISK * (OCCUR AT 28TH FL. ONLY)
4. —⋈— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS (----) INDICATING DISTANCE BELOW TOP OF STEEL. BEAM.
5. WHERE NOTED PROVIDE 5" ø CORE IN SLAB, PLACE ONE STUD PER CORE LOCATION, SPACED WITHIN NEW MECH. ROOM.
6. WHERE NOTED PLACE BEAMS TIGHT TO UNDERSIDE OF DECK AT RIB CLOSEST TO OPENINGS SHIM AT 1/4 POINT AS REQUIRED.



PART PLAN - 29TH TO 34TH FL.



PART PLAN - 6TH FLOOR



PART PLAN - 7TH FLOOR

ATTACHMENT "A"

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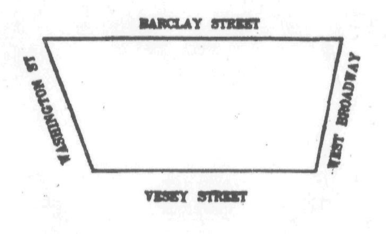

NOTES

LEGEND

No.	Date	Revision
11	8/23/94	ISSUED FOR TENANT ALTERAT.
10	10/4/93	CHILLED WATER LINE RELOCAT.
9	6/21/93	ISSUED FOR ADDENDUM No. 1
8	5-21-93	ISSUED FOR TENNANT ALTERATION
7	7-3-90	ISSUED FOR BULLETIN #103
6	8/15/89	REVISED AS CIRCLED
5	4/6/89	REVISED AS CIRCLED
4	3/1/89	REVISED AS CIRCLED
3	1/20/89	REVISED AS CIRCLED.
	1/13/89	ISSUED FOR CONST
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

7TH TO 29TH FLOOR FRAMING PLAN

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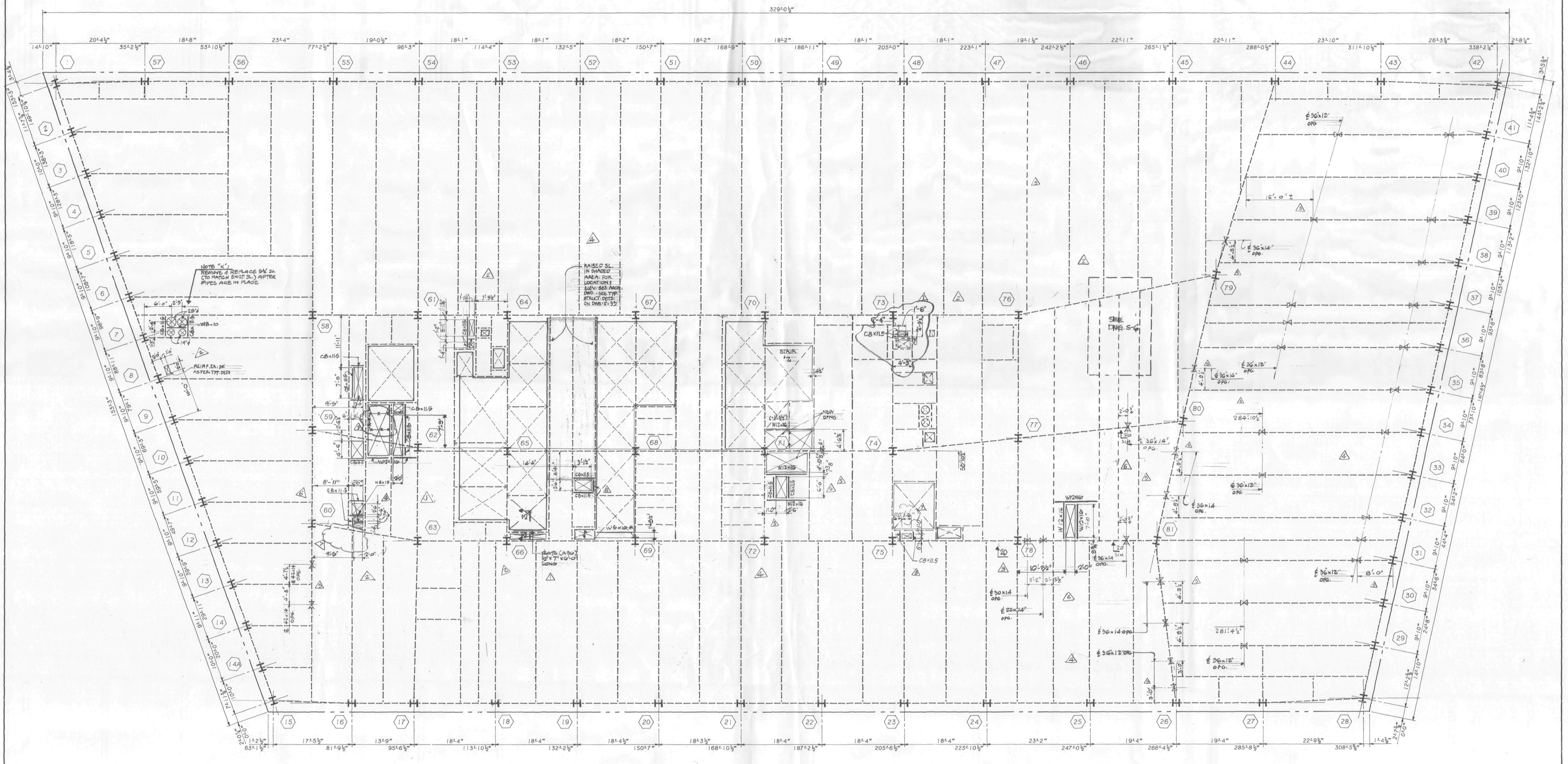

30TH FLOOR FRAMING PLAN

NOTES:

1. FOR NOTES NOT SHOWN SEE DWG S-2.

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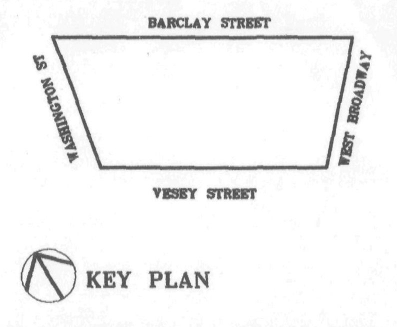

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/13/89	ISSUED FOR CONST.
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

30 TH FLOOR
FRAMING PLAN

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Date:
Scale:
Sheet No. S 5

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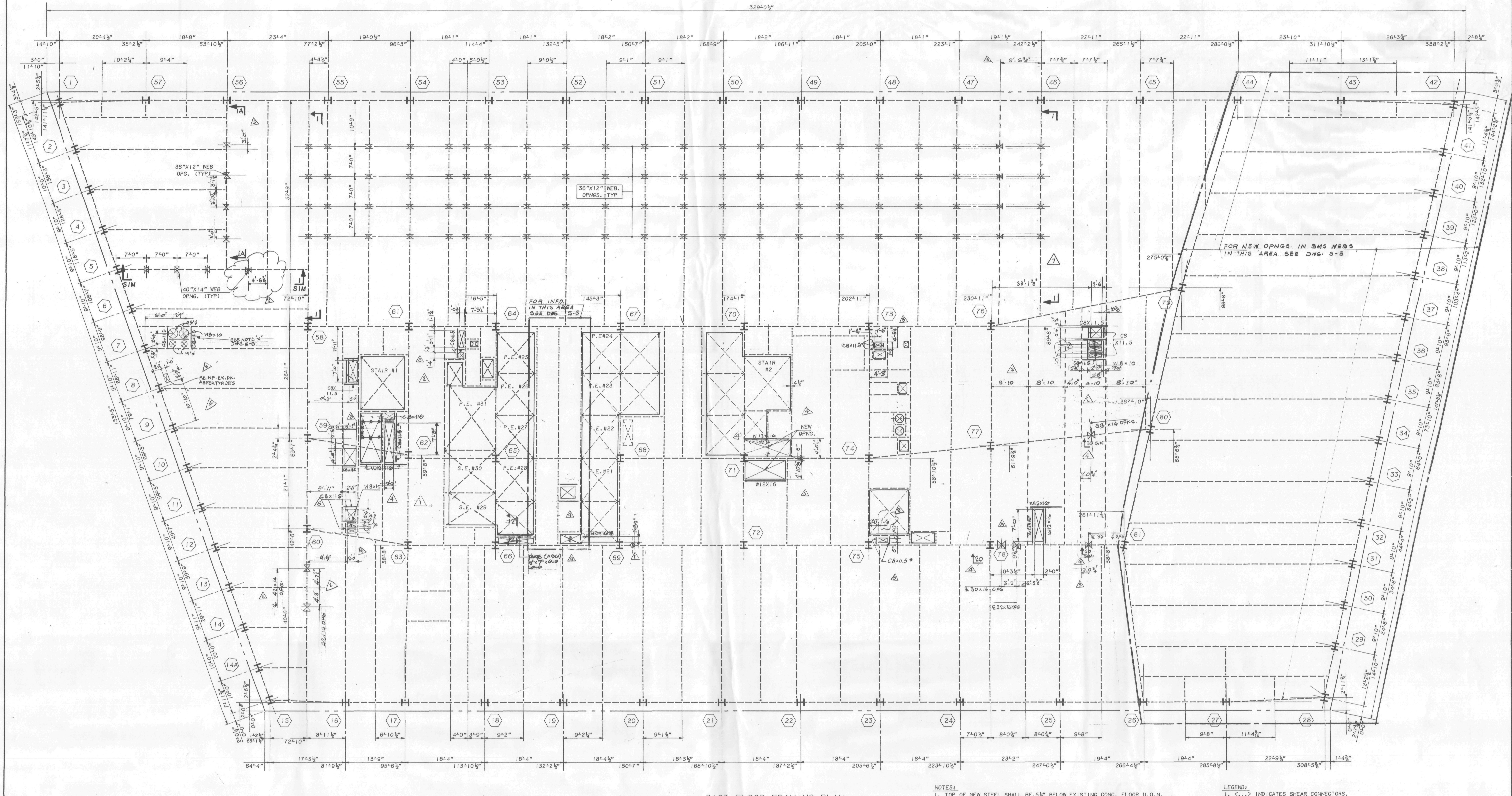

31ST FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS - - - INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

STATE OF NEW YORK — IRWIN G. CANTOR No. 32548 P.E. — LICENSED PROFESSIONAL ENGINEERS

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KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9		REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	6/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEVATION
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

31 ST. FLOOR FRAMING PLAN

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Project No.:
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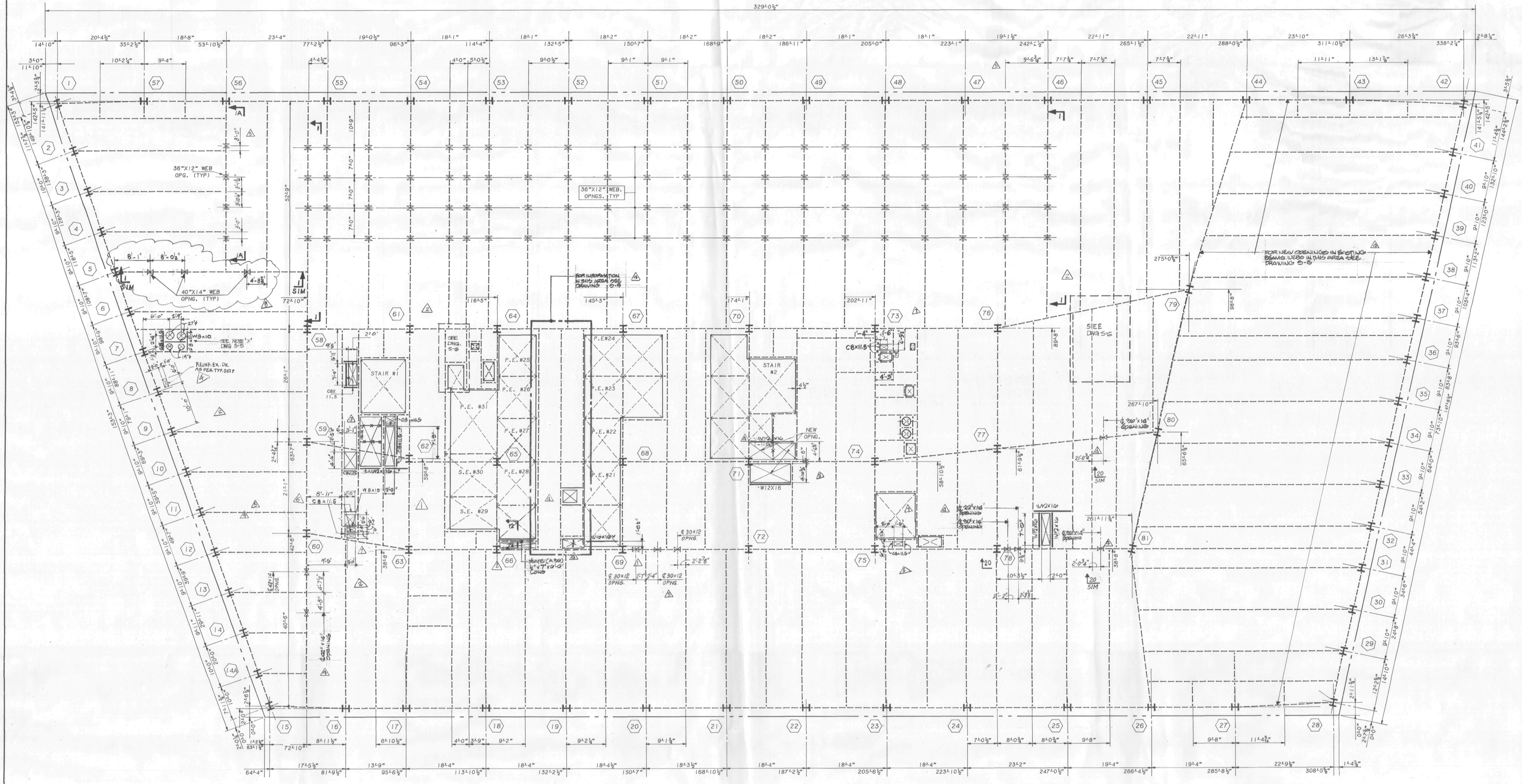

32ND FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. ⬡ INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS —..... FROM TOP OF BEAM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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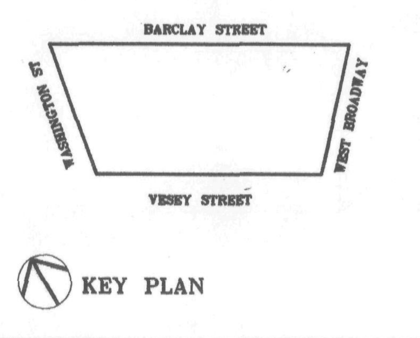

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

32 ND. FLOOR FRAMING PLAN

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Sheet No. S-7

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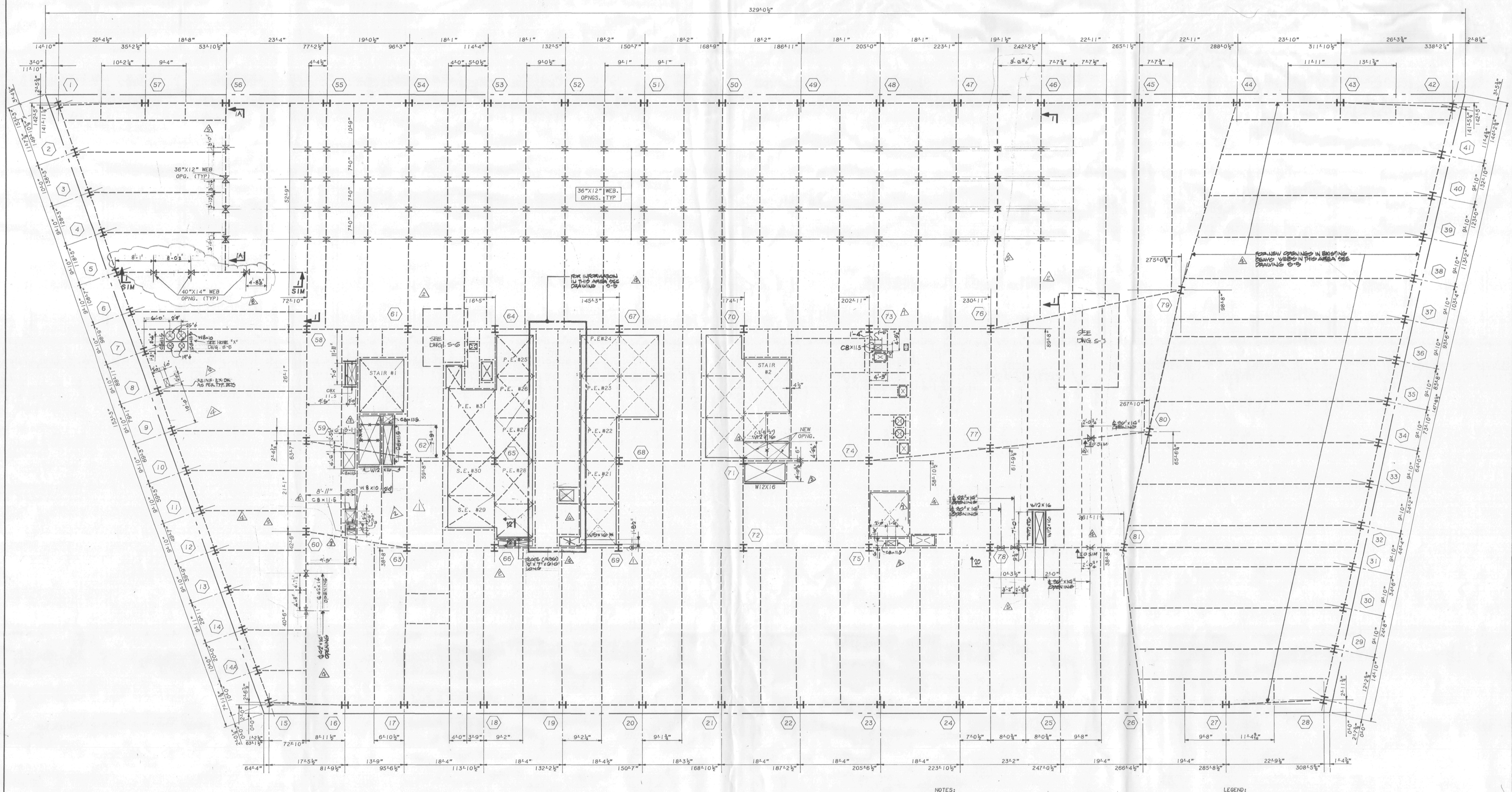

33RD FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
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4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. ☒ INDICATES EXISTING SLAB OPENING.
8. ☒ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS -...... FROM TOP OF BEAM
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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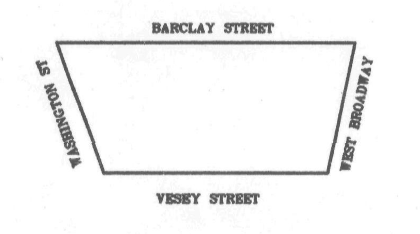

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4-6-89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV//...
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATION

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

33RD FLOOR FRAMING PLAN

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Scale:
Sheet No. S-8

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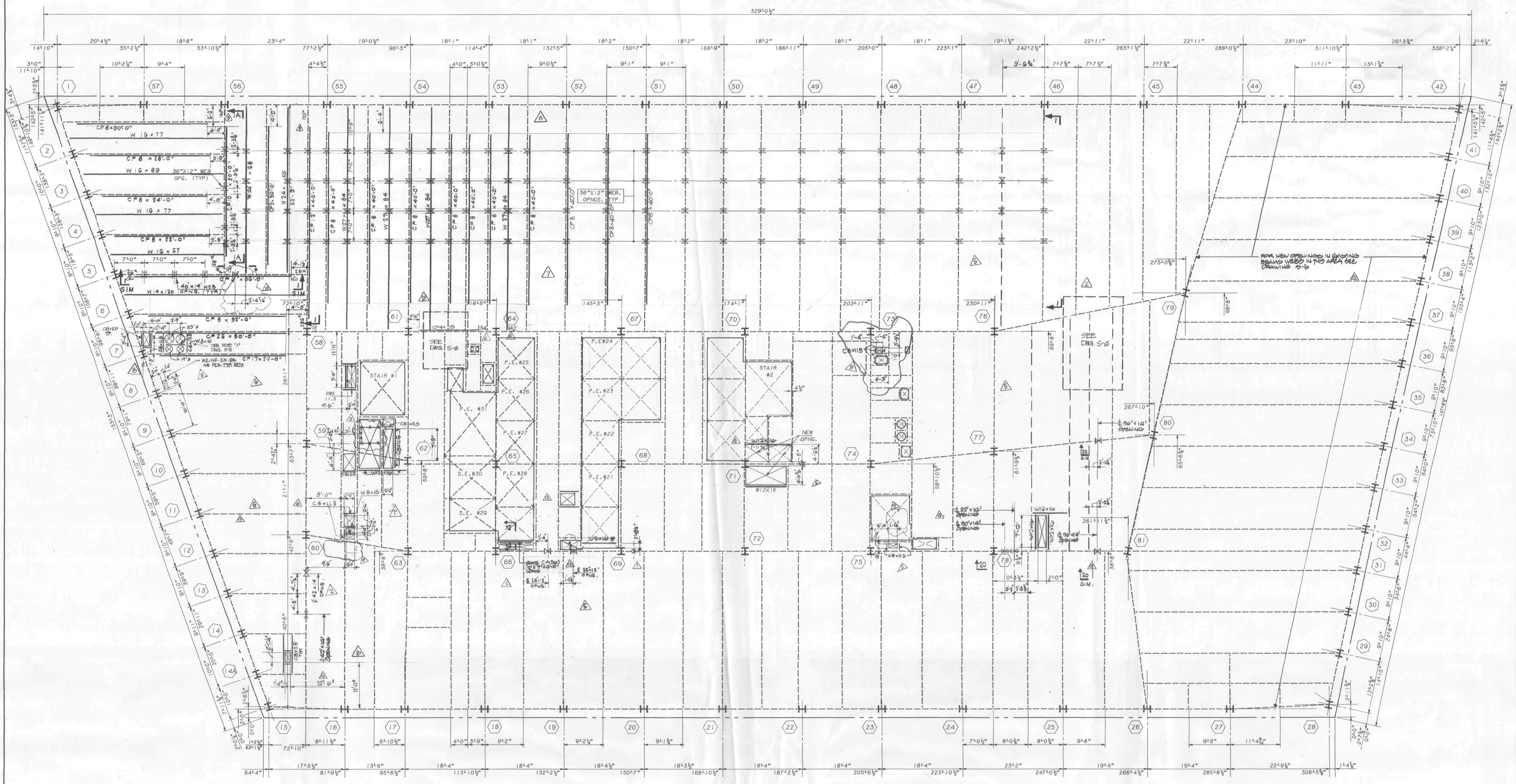

34TH FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

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6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS - --- INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
12. △C INDICATES TYPE OF REINFORCED EXIST. CONNECTIONS, SEE TYP. DET. DWG S-33.

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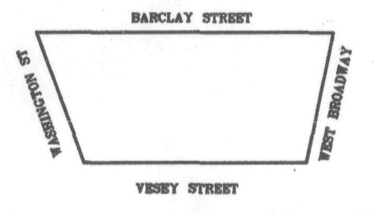

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10		REVISED AS CIRCLED
9	8/15/89	REVISED AS CIRCLED
8	8-10-89	ISSUED FOR FIELD SKETCH
7	5-22-89	REVISED AS CIRCLED
6	4-6-89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REV. AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER / THE CANTOR-SEINUK GROUP

34 TH FLOOR FRAMING PLAN

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Scale:
Sheet No. S-9

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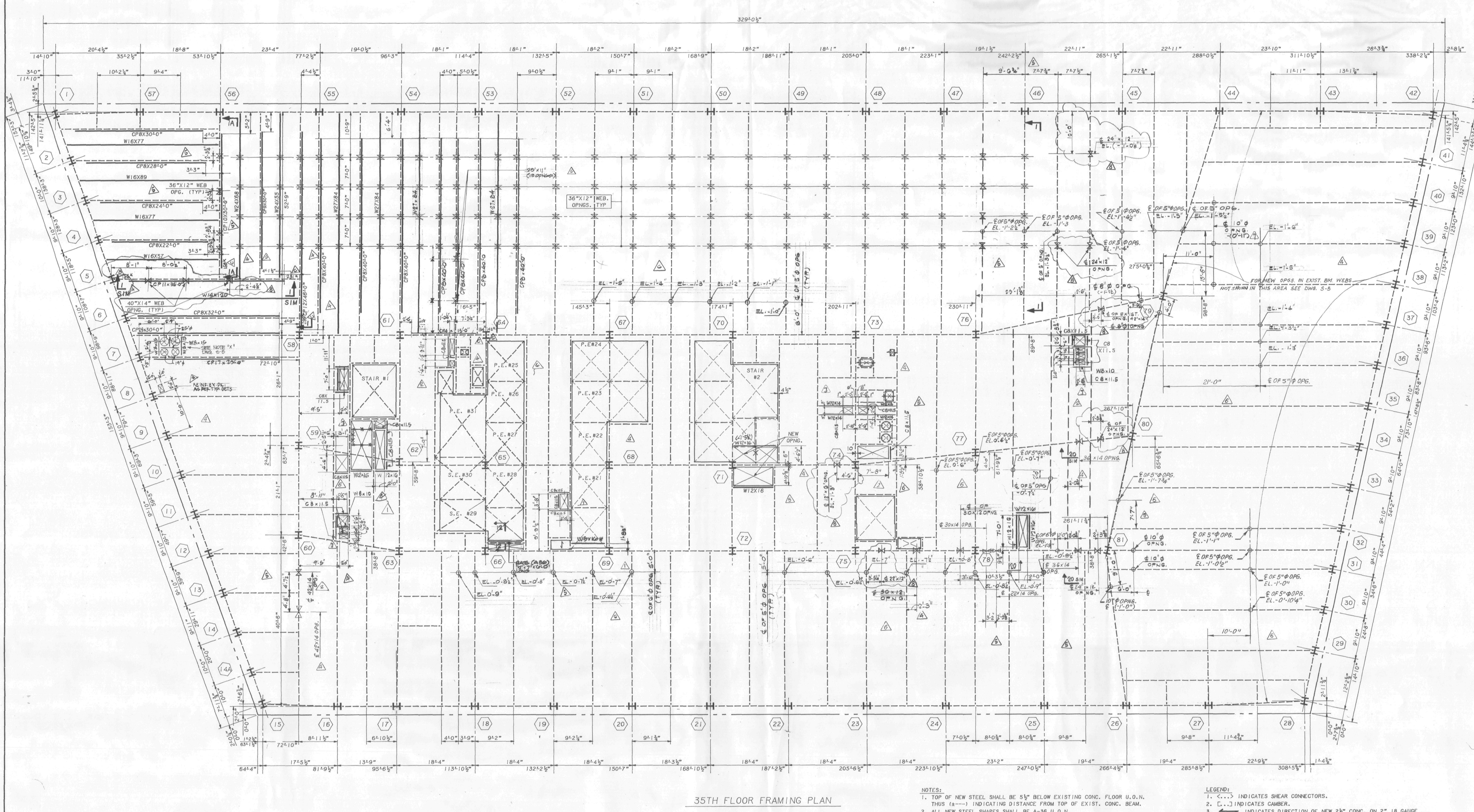

35TH FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ALL PLUMBING & EL's TO BE VERIFIED WITH PLUMBING SHOP DWGS. BEFORE PROCEEDING WITH WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
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10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS ±--- FROM TOP OF STEEL BEAM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
12. △ INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL SEE DETAIL ON DWG. S-33

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Salomon Brothers Inc

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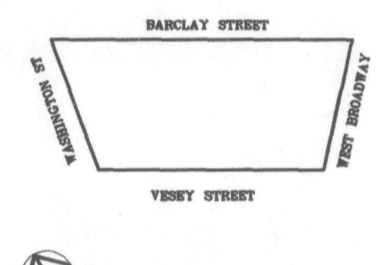
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REV. AS CIRCLED
3	1/3/89	ISSUED FOR CONSTRUCTION
2	12/22/88	REVISED AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

35TH FLOOR FRAMING PLAN

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Sheet No. S-10
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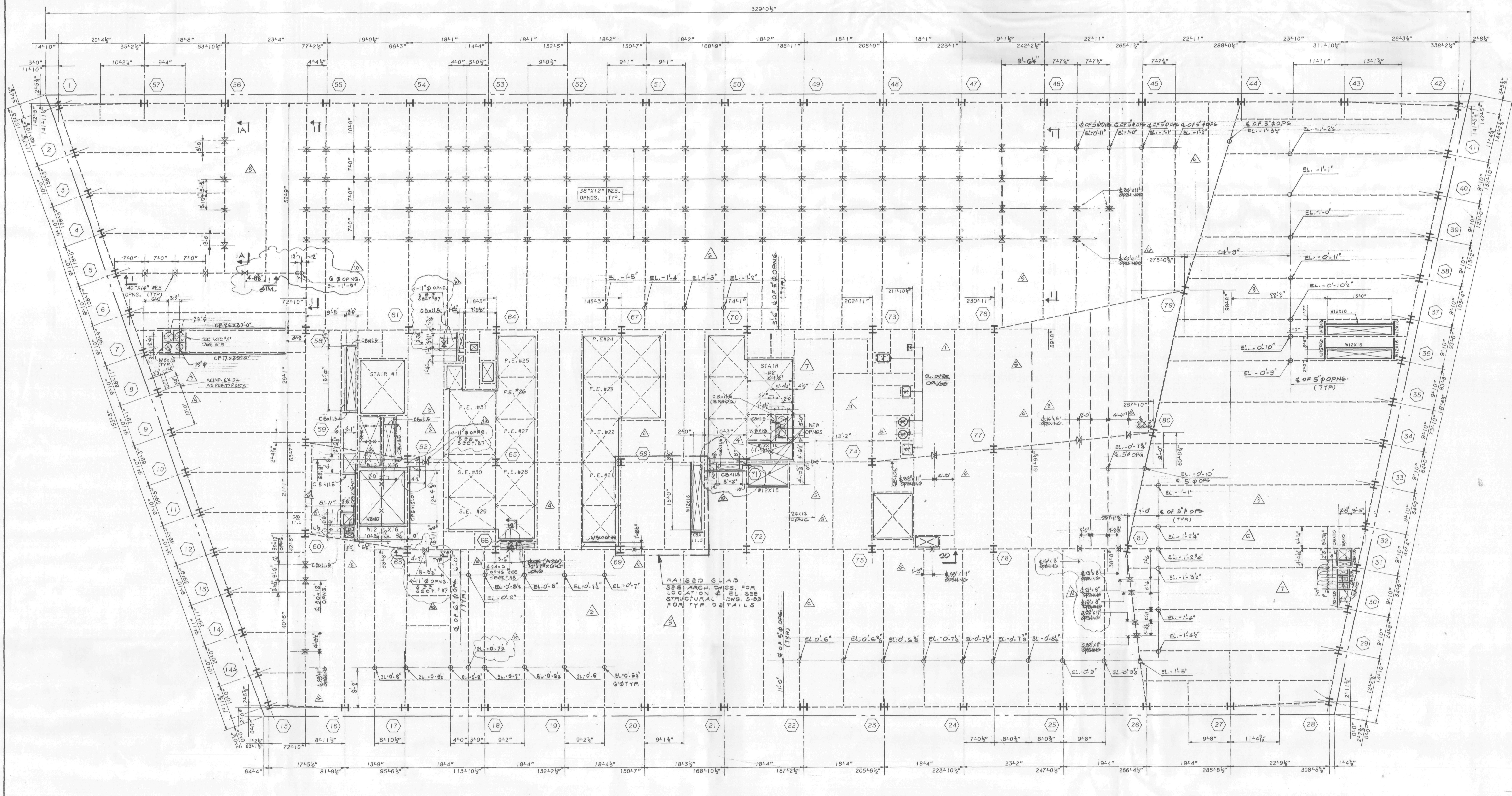

36TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
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LEGEND:

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3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
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6. ------ INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS ---- INDICATING DISTANCE BELOW T/STL. BM.
11. CP.... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048

BARCLAY STREET
WEST BROADWAY
VESEY STREET
KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10	7-3-90	ISSUED FOR BULLETIN #103
9	8/24/89	ISSUED FOR FIELD SKETCH
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/10/88	REVISED AS CIRCLED FOR SHUTTLE ELEVATION
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10/31/88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS.

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ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

36TH FLOOR
FRAMING PLAN

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Project No.:
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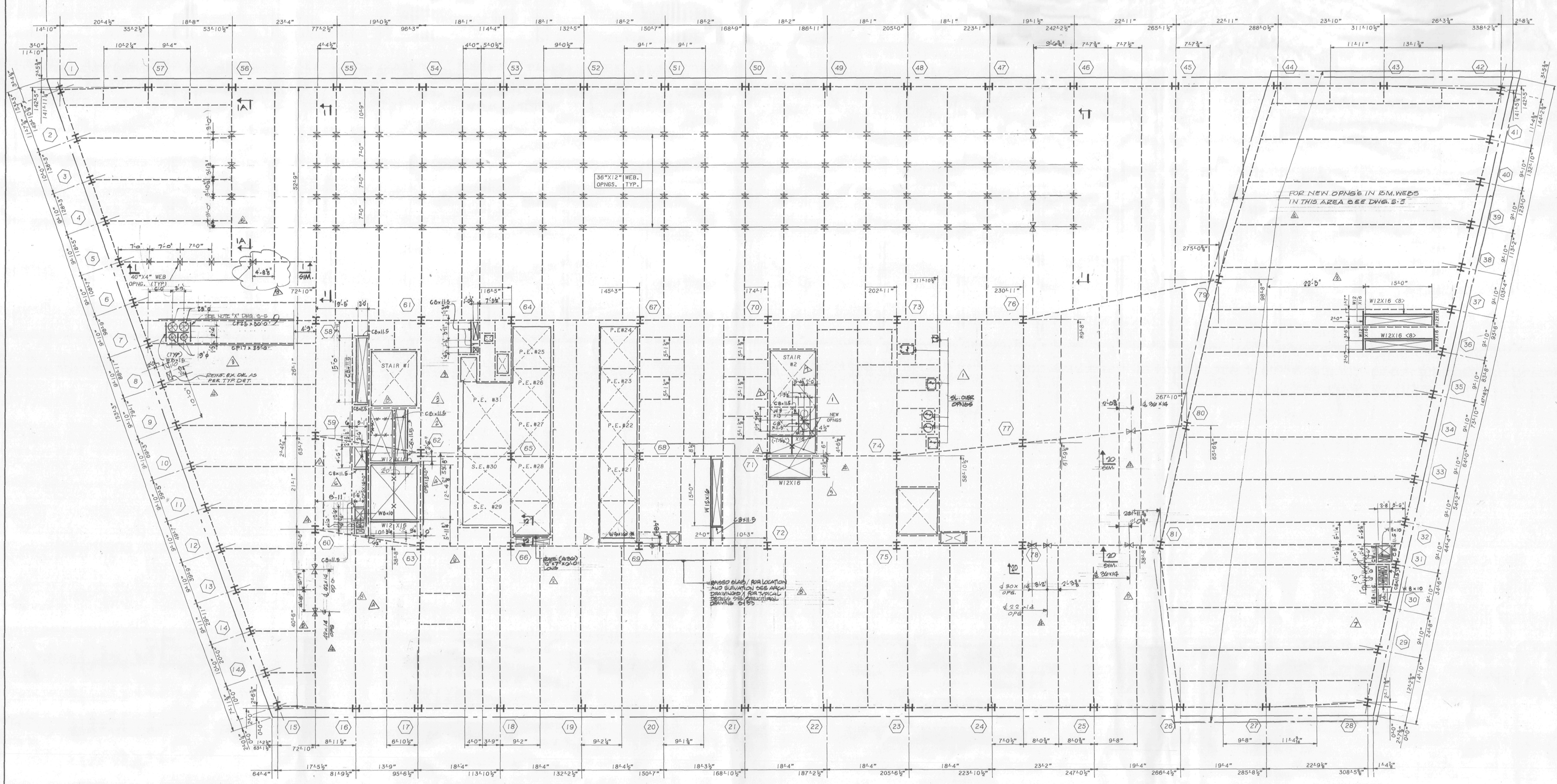
Sheet No. S-11

88067 S-11



37TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. [X] INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS -..... FROM TOP OF BEAM.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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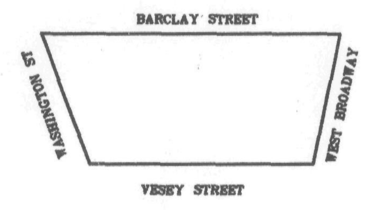

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9		REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REVISED AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEVS
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10/31/88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

37TH FLOOR
FRAMING PLAN

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Project No.:
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88057/202 S-12

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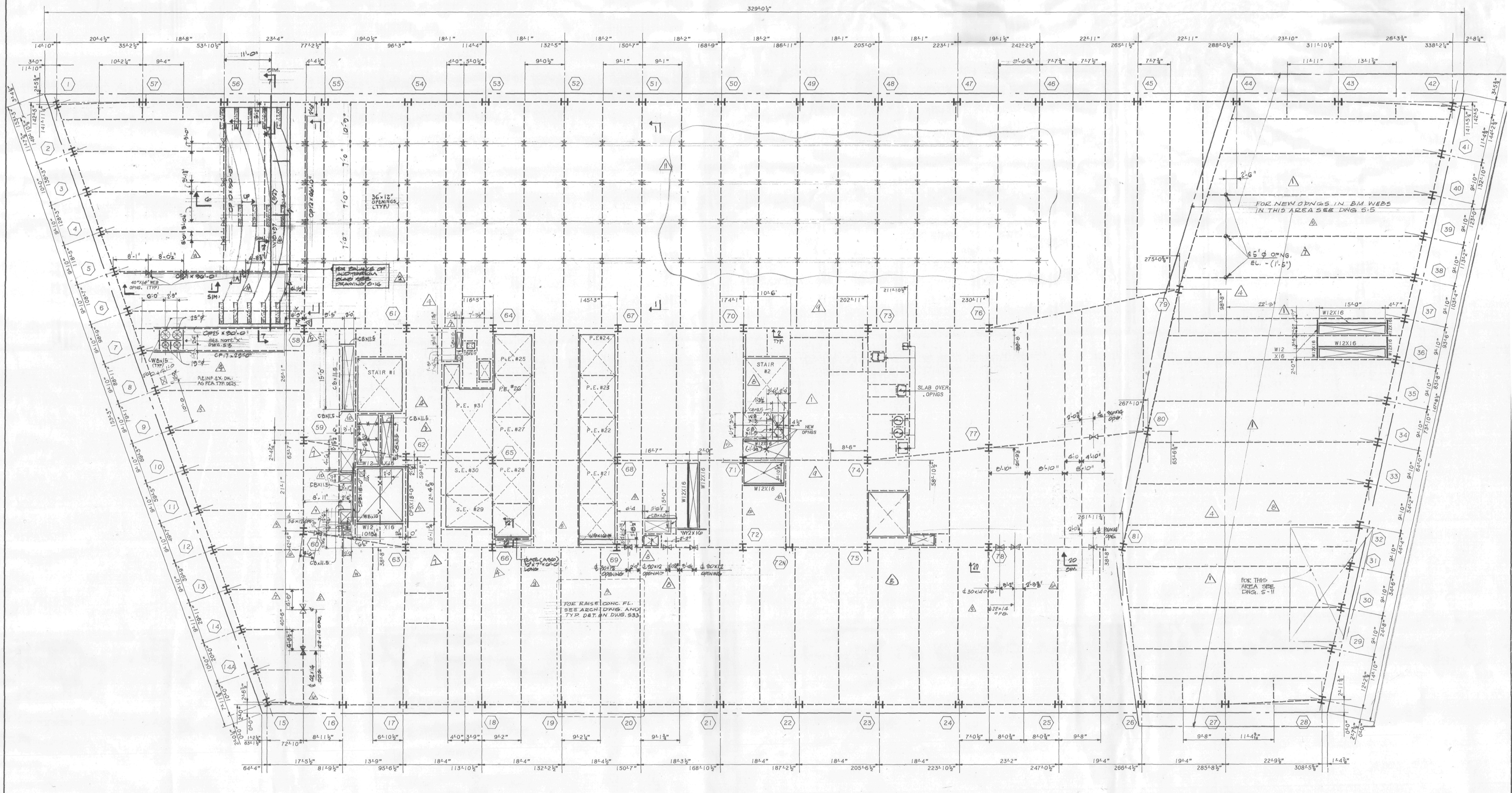

38TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN. TO BE W8 x 28 U.O.N.
10. INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N. THUS ---: INDICATING DISTANCE BELOW T/STL. BM.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. (C) INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL. SEE DETAIL ON DWG. S-33

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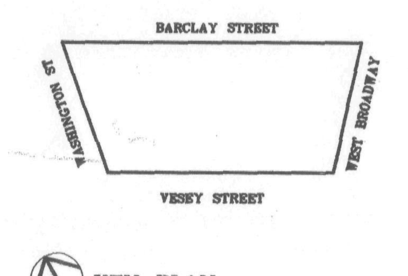

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11	11/30/89	BULLETIN #15
10	8/15/89	REVISED AS CIRCLED
9	6/12/89	REVISED AS CIRCLED
8	6/22/89	REVISED AS CIRCLED
7	4/6/89	REVISED AS CIRCLED
6	3/1/89	REVISED AS CIRCLED
5	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
4	12/22/88	REV. AS CIRCLED
3	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
2	11/21/88	REVISION TO 11/7/88 SUBMISSION
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10/31/88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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38TH FLOOR
FRAMING PLAN

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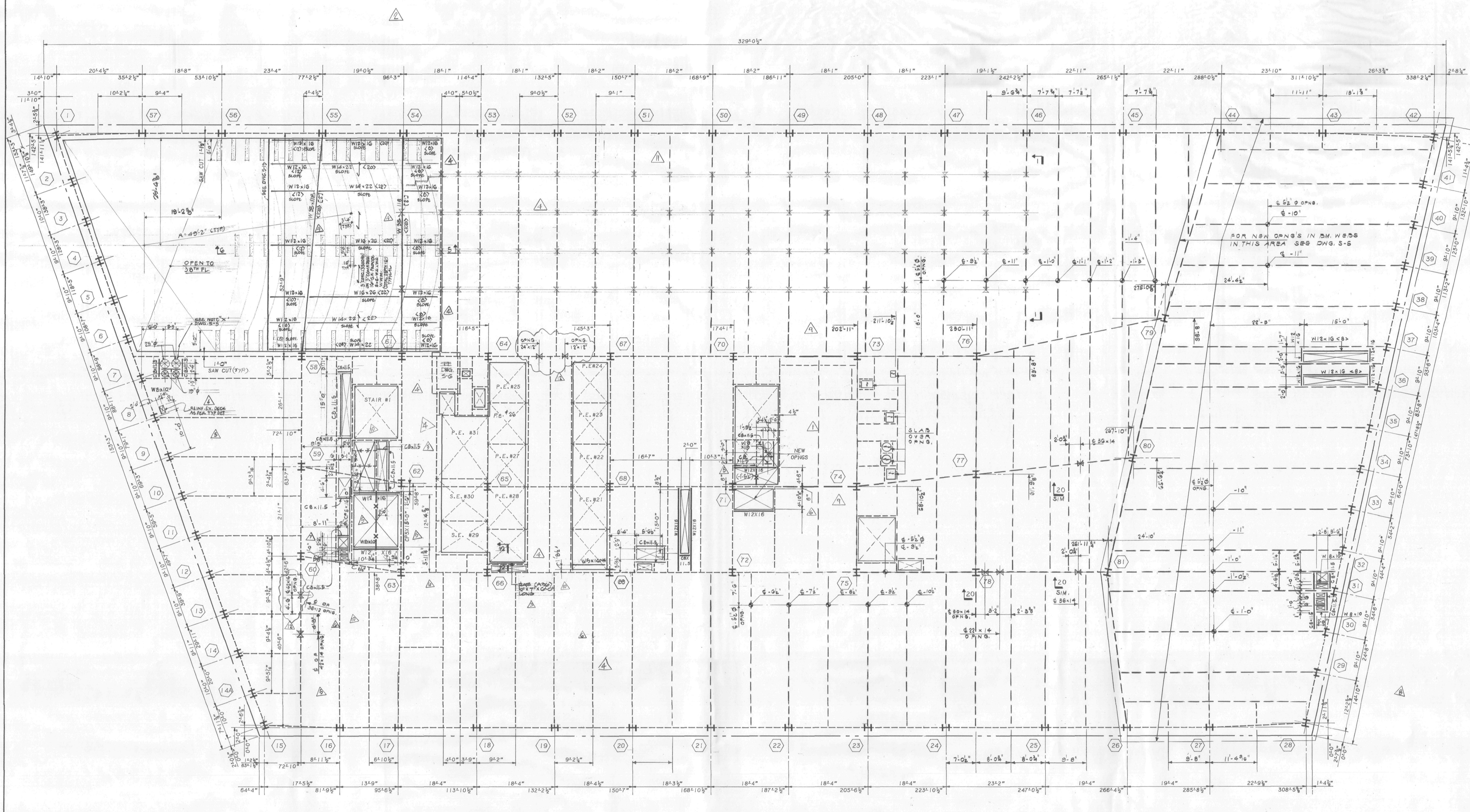

39TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. CONTRACTOR TO SUBMIT DETAIL FOR SUPPORT OF EXIST. PIPES IN OPEN AREA FOR ENGINEERS REVIEW AND APPROVAL.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN. TO BE W8×28 U.O.N.
10. —⧗— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33

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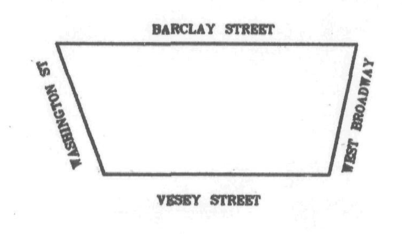

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
12	4/24/90	ISSUED FOR BULLETIN #79
11	11/30/89	BULLETIN #15
10	8/15/89	REVISED AS CIRCLED
9	6/12/89	REVISED AS CIRCLED
8	5/22/89	REVISED AS CIRCLED
7	4/6/89	REVISED AS CIRCLED
6	3/1/89	REVISED AS CIRCLED
5	1/20/89	REV. AS CIRCLED
	1/3/89	ISSUED FOR CONST.
4	12/22/88	REV. AS CIRCLED
3	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
2	11/21/88	REVISION TO 11/7/88 SUBMISSION
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10-31-88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

39TH FLOOR FRAMING PLAN

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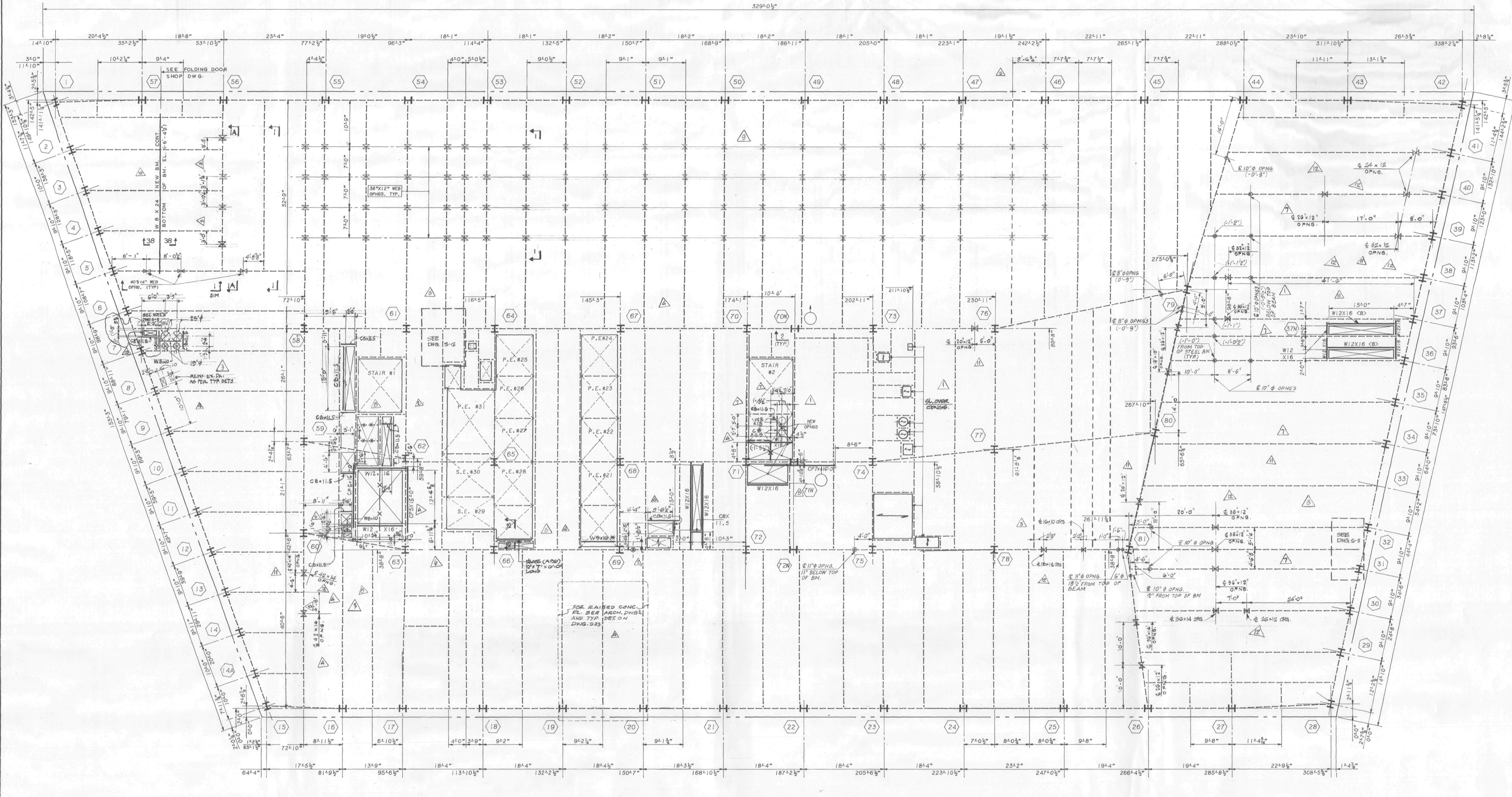

40TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. [X] INDICATES EXISTING SLAB OPENING.
8. [X] INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMN. TO BE W8x28 U.O.N.
10. —X— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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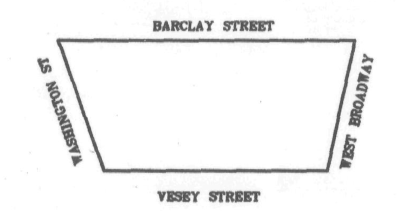

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
13	7/3/90	ISSUED FOR BULLETIN #103
12	5/10/90	ISSUED FOR BULLETIN #84
11	4/24/90	ISSUED FOR BULLETIN #79
10	3/30/90	REVISED AS CIRCLED
9	11/30/89	BULLETIN #15
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	10-31-88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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40TH FLOOR FRAMING PLAN

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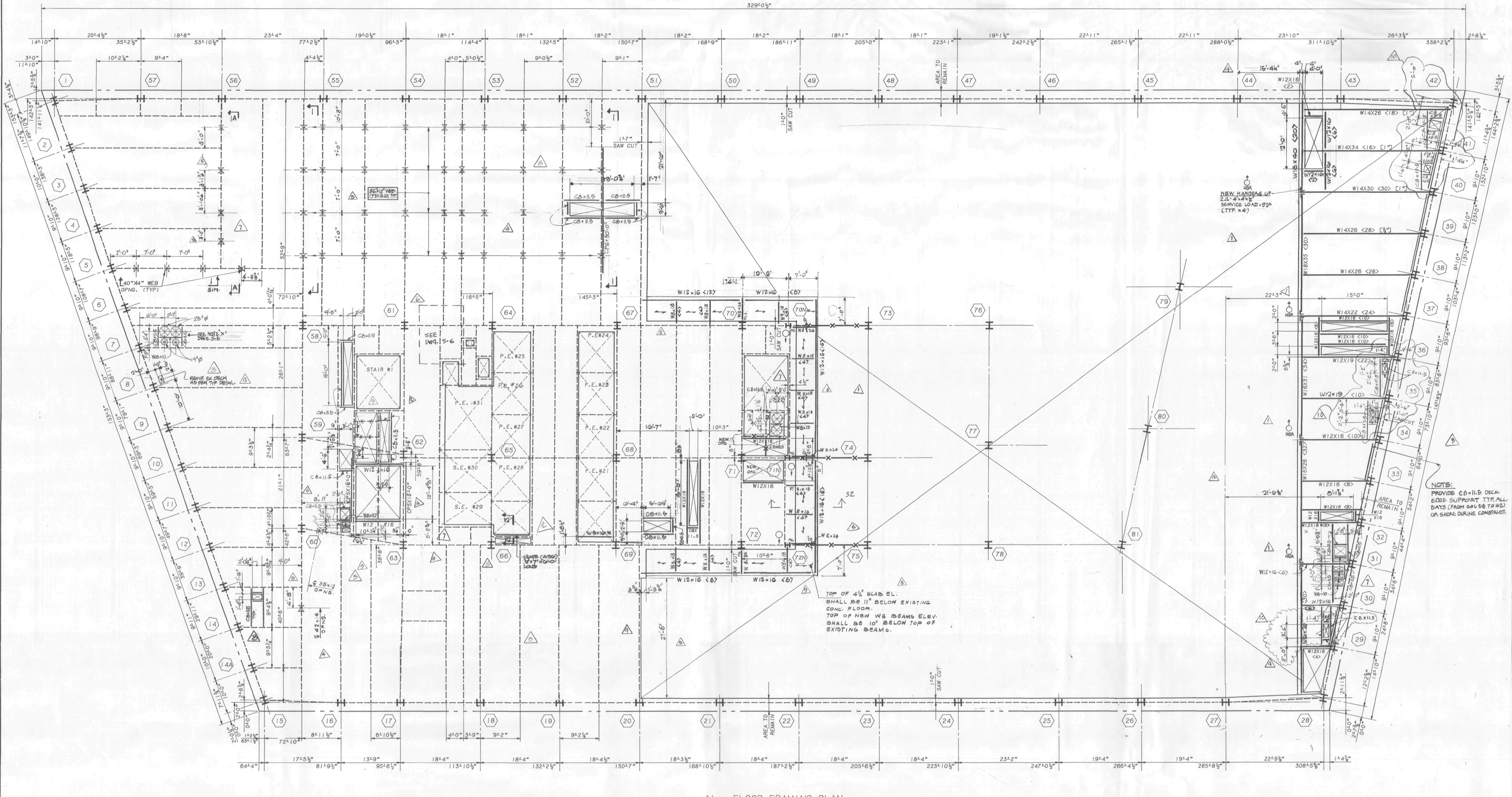

41ST FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. CONTRACTOR TO SUBMIT DETAIL FOR SUPPORT OF EXIST. PIPES IN OPEN AREA FOR ENGINEERS REVIEW AND APPROVAL.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —x— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMNS TO ~~BE~~ W8x28 U.O.N.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. M.C. INDICATES MOMENT CONNECTION (FULL CAPACITY).

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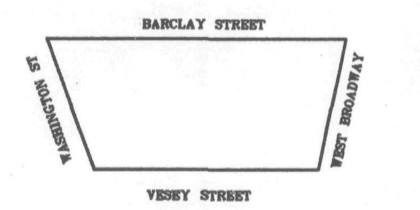

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
10	1/26/90	ISSUED FOR BULLETIN NO. 45
9	8/15/89	REVISED AS CIRCLED
8	8/10/89	ISSUED FOR FIELD SKETCH
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11-7-88	REVISION TO 10/31/88 SUBMISSION
	10-31-88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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41ST FLOOR FRAMING PLAN

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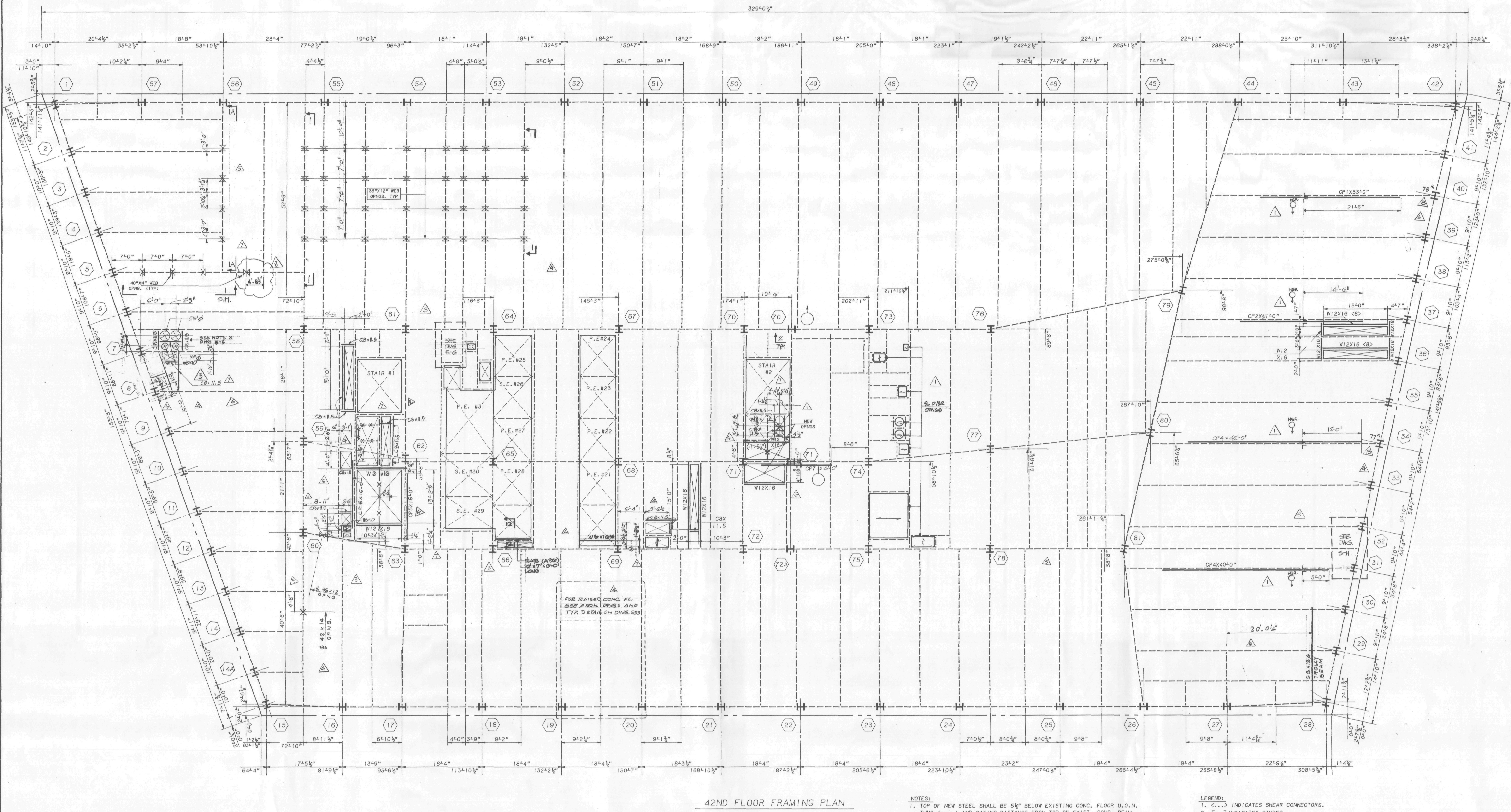

42ND FLOOR FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. ----- INDICATES EXISTING STEEL FRAMING.
7. [X] INDICATES EXISTING SLAB OPENING.
8. [X] INDICATES NEW SLAB OPENING.
9. (...N) INDICATES NEW POST OR COLUMNS TO BE W8×28 U.O.N.
10. —X— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS-.... FROM TOP OF BEAM ⚠7
11. CP... INDICATES REINF. FOR EXIST. BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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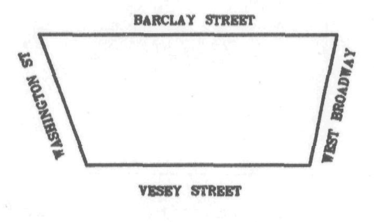

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
8		REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/7/88	REVISION TO 10/31/88 SUBMISSION
	OCT. 31. 88	ISSUED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

42ND FLOOR FRAMING PLAN

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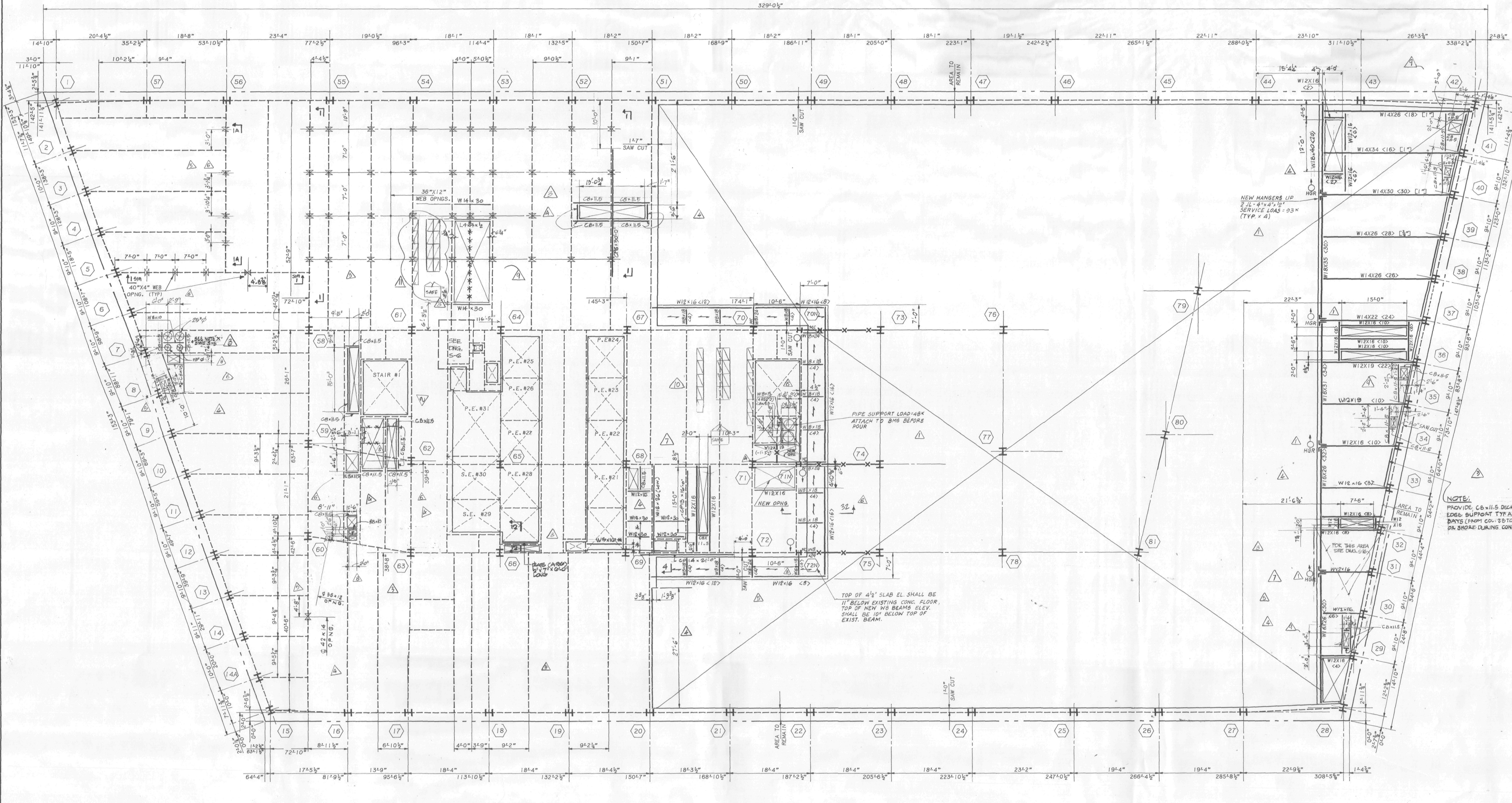

43RD FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. CONTRACTOR TO SUBMIT DETAIL FOR SUPPORT OF EXIST. PIPES IN OPEN AREA FOR ENGINEERS REVIEW AND APPROVAL.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING & BALCONIES (5)
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. INDICATES EXISTING SLAB OPENING.
8. INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMNS TO BE W8x28 U.O.N.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. * INDICATES CO-ORDINATE LOCATION OF BEAM WITH ELEVATOR SHOP DWGS.

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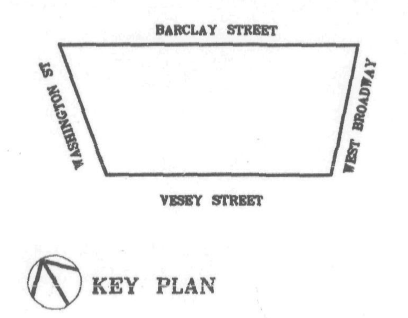

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11	7/22/94	REVISED AS NOTED
10	5/25/94	REVISED AS CIRCLED
9	9/26/90	ISSUED FOR BULLETIN NO. 45
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	NOV. 7, 88	REVISION TO 10/31/88 SUBMISSION
	OCT 31, 88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATION

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

43RD FLOOR FRAMING PLAN

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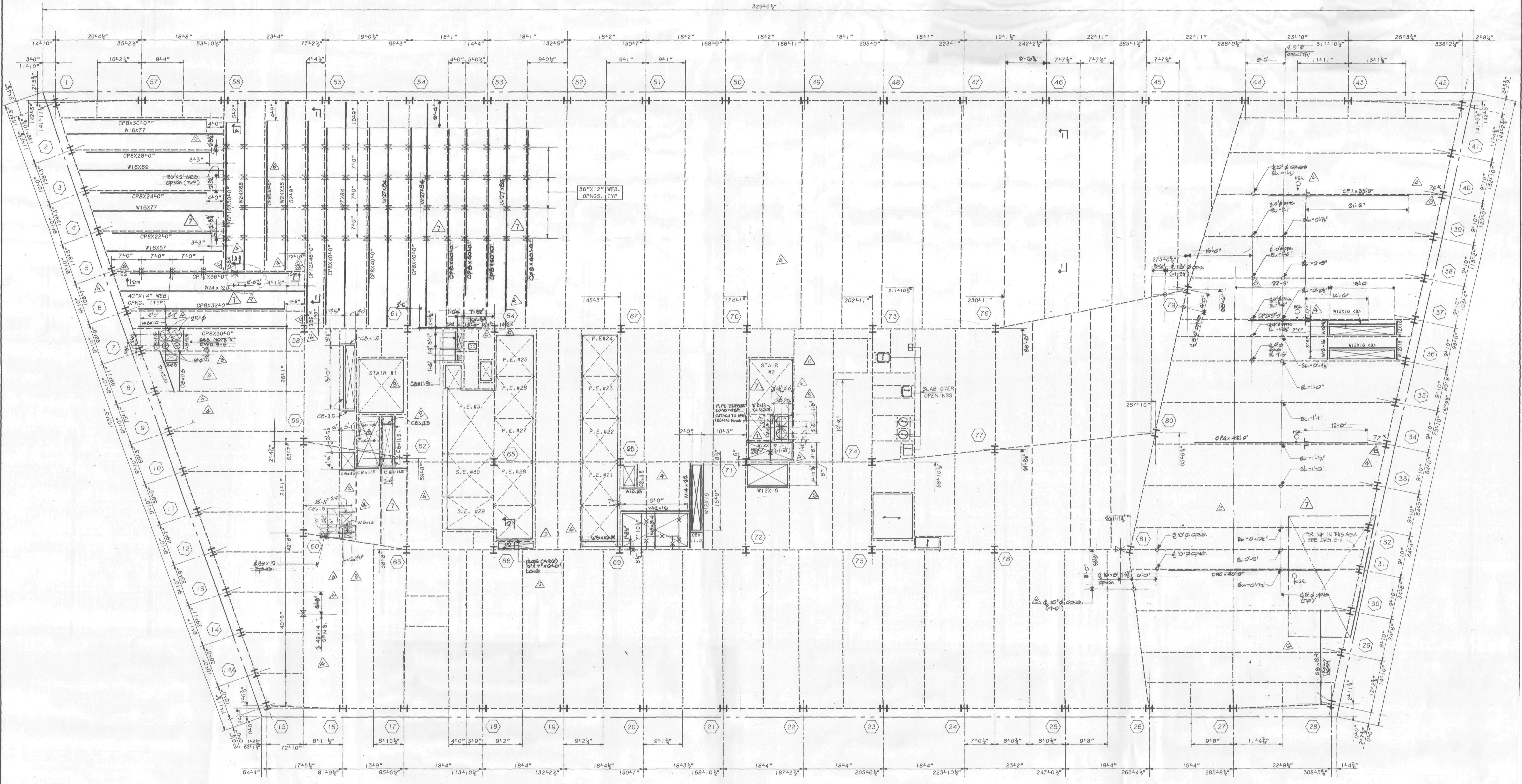
Project No.: | Sheet No.: S18
Date:
Scale:

85057 S-18



44TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ALL PLUMBING & EL'S TO BE VERIFIED WITH PLUMBING SHOP DWGS. BEFORE PROCEEDING WITH WORK.

6

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N. THUS ± FROM TOP OF STEEL BEAM
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33
12. (A) INDICATES TYPE OF EXISTING CONNECTION REINF. DETAIL, SEE DETAIL ON DWG. S-33

6 4

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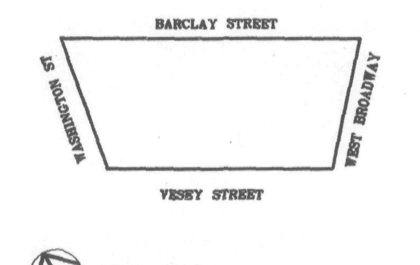

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9	10/10/89	REVISED AS CIRCLED
8	8/15/89	REVISED AS CIRCLED
7	5/22/89	REVISED AS CIRCLED
6	4/6/89	REVISED AS CIRCLED
5	3/1/89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
3	12/22/88	REVISED AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	NOV. 7, 88	REVISION TO 10/31/88 SUBMISSION
	OCT. 31, 88	ISSUED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATION

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

44TH FLOOR FRAMING PLAN

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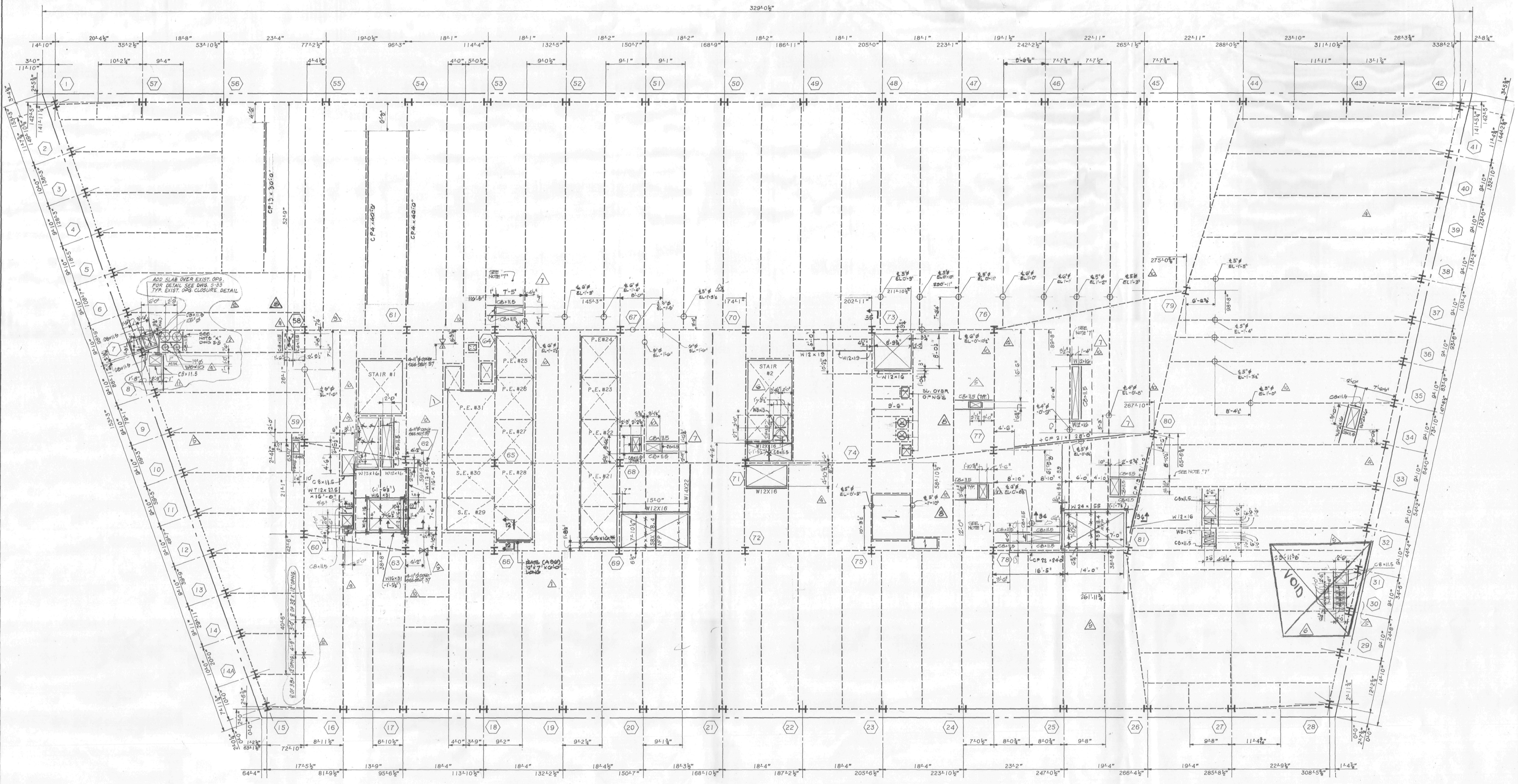
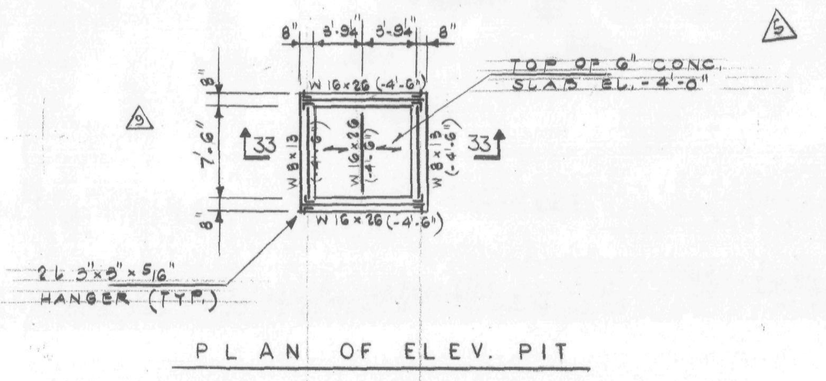


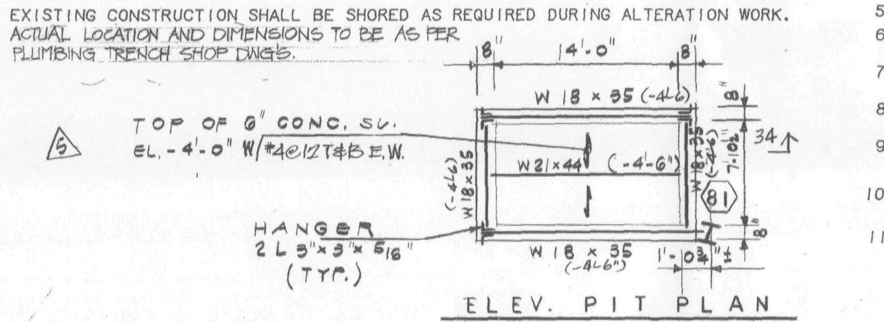
45TH FLOOR FRAMING PLAN



PLAN OF ELEV. PIT

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWG. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.
7. ACTUAL LOCATION AND DIMENSIONS TO BE AS PER PLUMBING TRENCH SHOP DWG'S.



ELEV. PIT PLAN

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —X— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. (..N) INDICATES NEW POST OR COLUMN.
10. —⧖— INDICATES BEAM PENETRATION IN WEB ¢ OF PENETRATION SHALL BE AT ¢ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.

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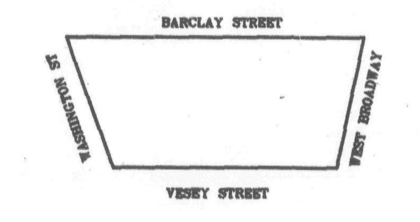

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
12		
11	1/26/90	ISSUED FOR BULLETIN NO.45
10	10/ /89	REVISED AS CIRCLED
9	8/15/89	REVISED AS CIRCLED
8	8/10/89	ISSUED FOR FIELD SKETCH
7	6/12/89	REVISED AS CIRCLED
6	5/22/89	REVISED AS CIRCLED
5	4/6/89	REVISED AS CIRCLED
4	3/1/89	REVISED AS CIRCLED
3	1/26/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST
2	12/22/88	REV. AS CIRCLED
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

45TH FLOOR FRAMING PLAN

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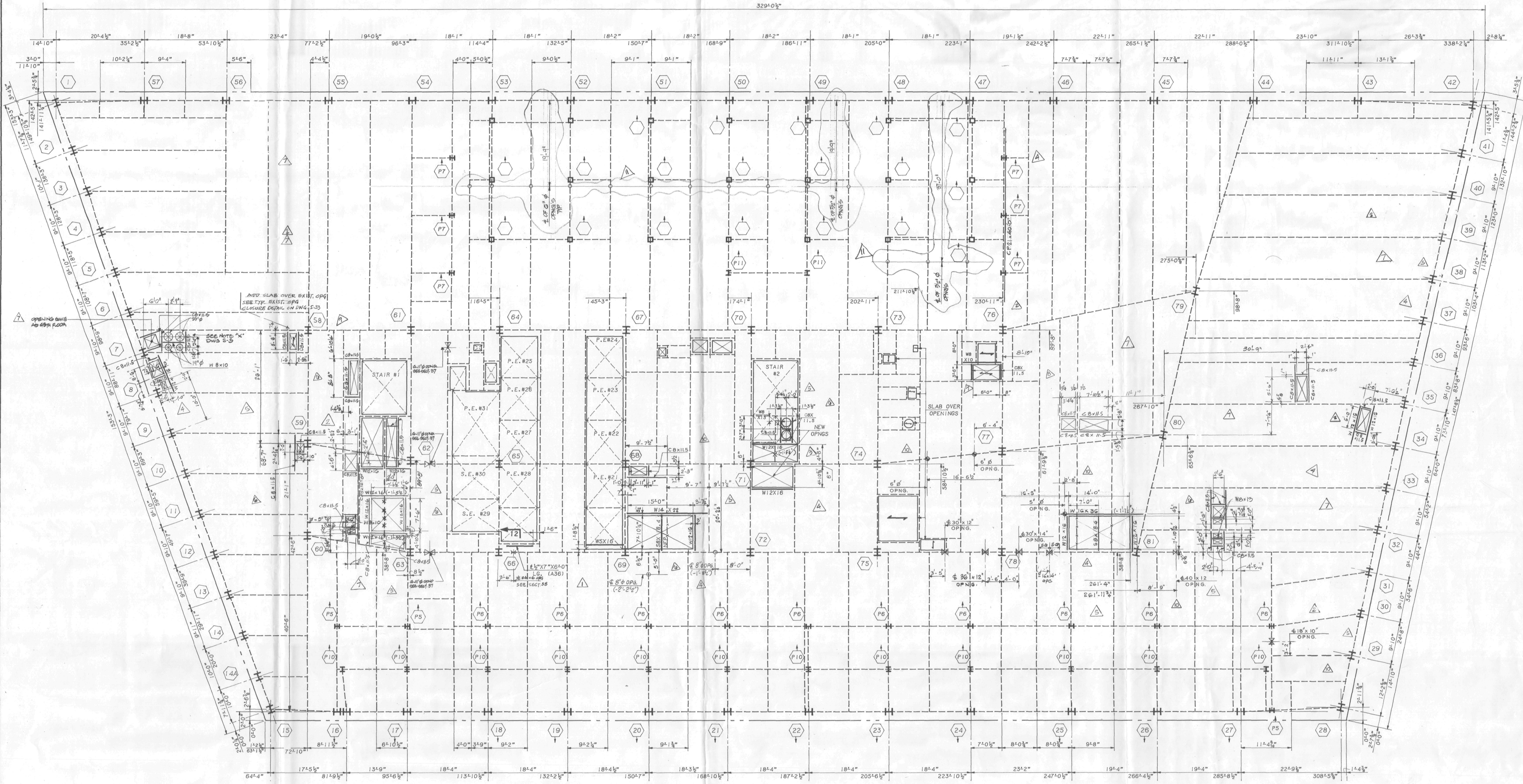

46TH FLOOR FRAMING PLAN

NOTES:

1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWGS S-32, S-33
5. ALL BEAM WEB OPENINGS SHALL BE VERIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:

1. <...> INDICATES SHEAR CONNECTORS.
2. [...] INDICATES CAMBER.
3. ⟷ INDICATES DIRECTION OF NEW 2½" CONC. ON 2" 18 GAUGE COMPOSITE METAL DECK OVER EXIST. OPENING.
4. —×— INDICATES PORTION OF EXISTING BEAM TO BE REMOVED AFTER ALL NEW STEEL IS ERECTED OR BEAMS ARE PROPERLY SHORED.
5. ——— INDICATES NEW STEEL FRAMING.
6. - - - - INDICATES EXISTING STEEL FRAMING.
7. ⊠ INDICATES EXISTING SLAB OPENING.
8. ⊠ INDICATES NEW SLAB OPENING.
9. ⟨..N⟩ INDICATES NEW POST OR COLUMN.
10. —⧗— INDICATES BEAM PENETRATION IN WEB ℄ OF PENETRATION SHALL BE AT ℄ OF BEAM U.O.N.
11. CP... INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33

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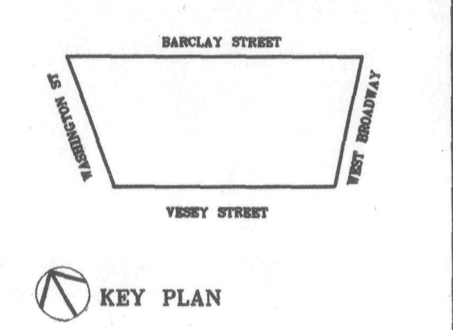

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
11		
10	7-3-90	ISSUED FOR BULLENTIN #103
9	4-30-90	COORD FOR FLRS 46 & 47
8	2-23-90	ISSUED FOR BULLETIN NO. 65
7	1/26/90	ISSUED FOR BULLETIN NO 45
6	8/15/89	REVISED AS CIRCLED
5	4-6-89	REVISED AS CIRCLED
4	3-1-89	REVISED AS CIRCLED
3	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST
2	12/22/88	REV. AS CIRCLED
1	12/19/88	REV. AS CIRCLED FOR SHUTTLE ELEV.
	11/21/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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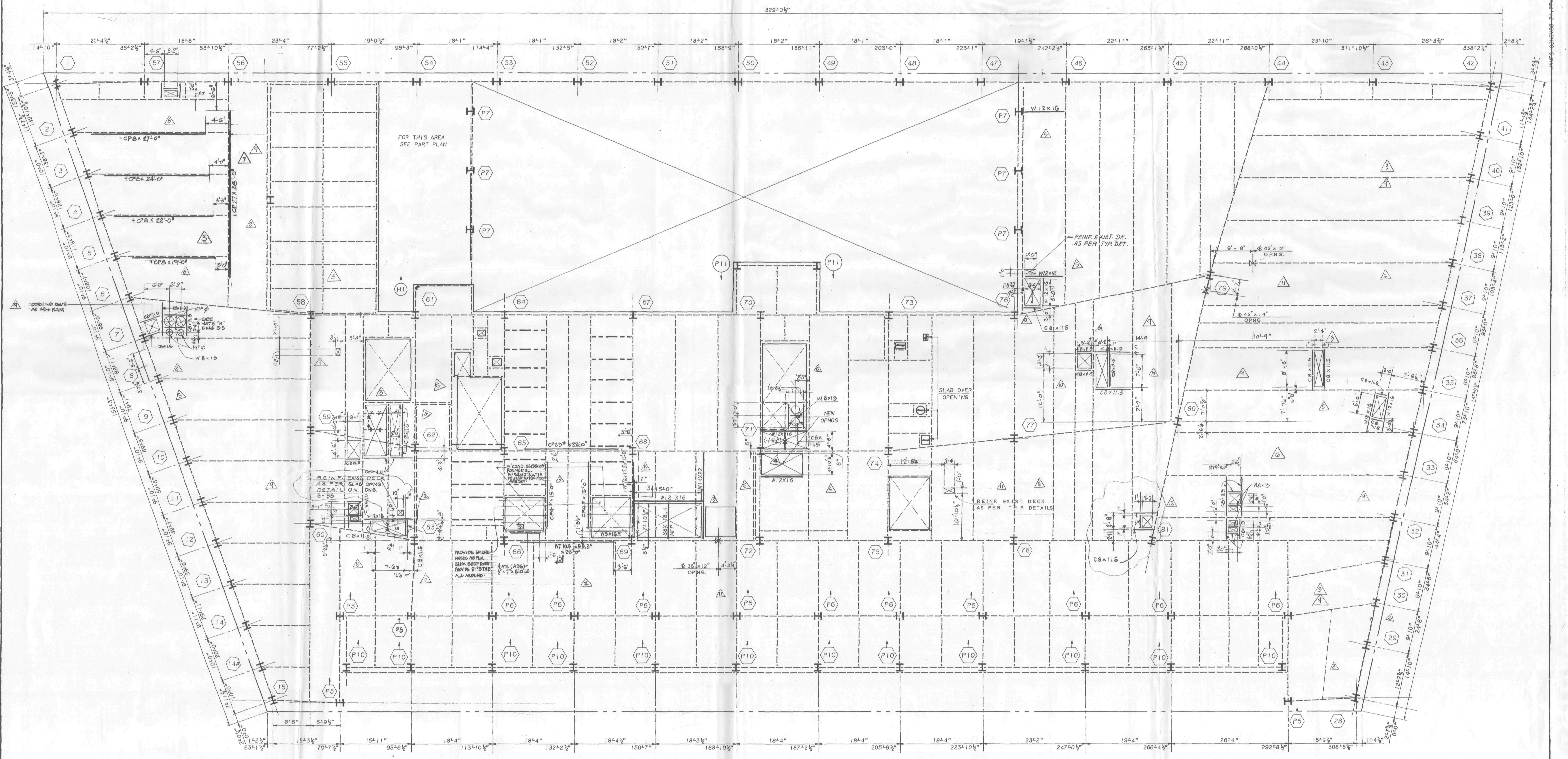
#88057 / 202



47TH FLOOR FRAMING PLAN

NOTE:
FOR NOTES SEE DWG. S-21

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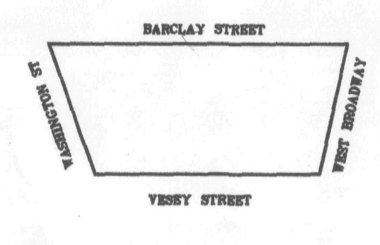

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
12	8-17-90	ISSUED FOR BULLETIN #116
11	7-3-90	~~ISSUED FOR BULLETIN #103~~
10	2-23-90	ISSUED FOR BULLETIN NO. 65
9	1-26-90	ISSUED FOR BULLETIN NO. 45
8	8-15-89	REVISED AS CIRCLED
7	5-26-89	REVISED AS CIRCLED
6	4-6-89	REVISED AS CIRCLED
5	3-1-89	REVISED AS CIRCLED
4	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST
3	12/22/88	REV. AS CIRCLED
2	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
1	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
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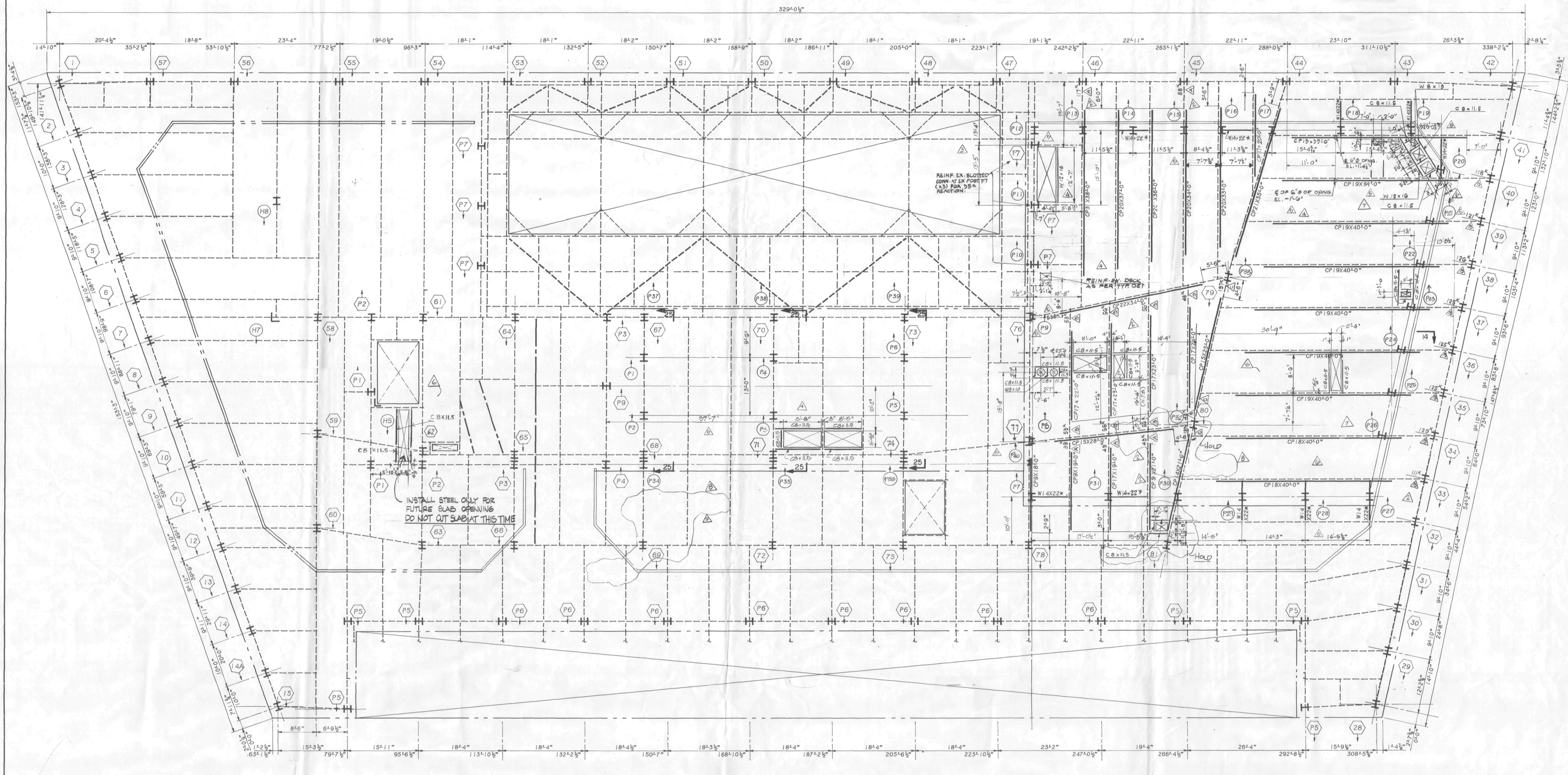

ROOF FRAMING PLAN

NOTES:
1. TOP OF NEW STEEL SHALL BE 5½" BELOW EXISTING CONC. FLOOR U.O.N. THUS (±---) INDICATING DISTANCE FROM TOP OF EXIST. CONC. BEAM.
2. ALL NEW STEEL SHAPES SHALL BE A-36 U.O.N.
3. ALL NEW BEAM REINFORCING PLATES SHALL BE A-572 GRADE 50 STEEL U.O.N.
4. FOR GENERAL NOTES AND TYPICAL SUPERSTRUCTURE DETAILS, SEE DWGS. S-32, S-33.
5. ALL BEAM WEB OPENINGS SHALL BE VERFIFIED WITH HVAC CONTRACTOR'S SHOP DWGS.
6. EXISTING CONSTRUCTION SHALL BE SHORED AS REQUIRED DURING ALTERATION WORK.

LEGEND:
1. --- INDICATES EXISTING STEEL FRAMING.
2. INDICATES NEW POST GOING UP FROM THIS LEVEL.
3. C.P. INDICATES REINF. FOR EXISTING BEAM. FOR SIZE AND DETAILS SEE DWG. S-33.
4. △ INDICATES TYPE OF EXIST. CONNECTION REINF. DETAIL. SEE DETAIL ON DWG. S-33

△2

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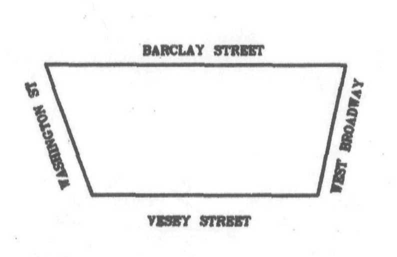

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
9	9-18-90	ISSUED FOR BULLETIN #120
8	8-17-90	ISSUED FOR BULLETIN #116
7	7/3/90	ISSUED FOR BULLETIN #103
6	1/26/90	ISSUED FOR BULLETIN 45
5	8/15/89	REVISED AS CIRCLED
4	4/6/89	REVISED AS CIRCLED
3	3/1/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO PA FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
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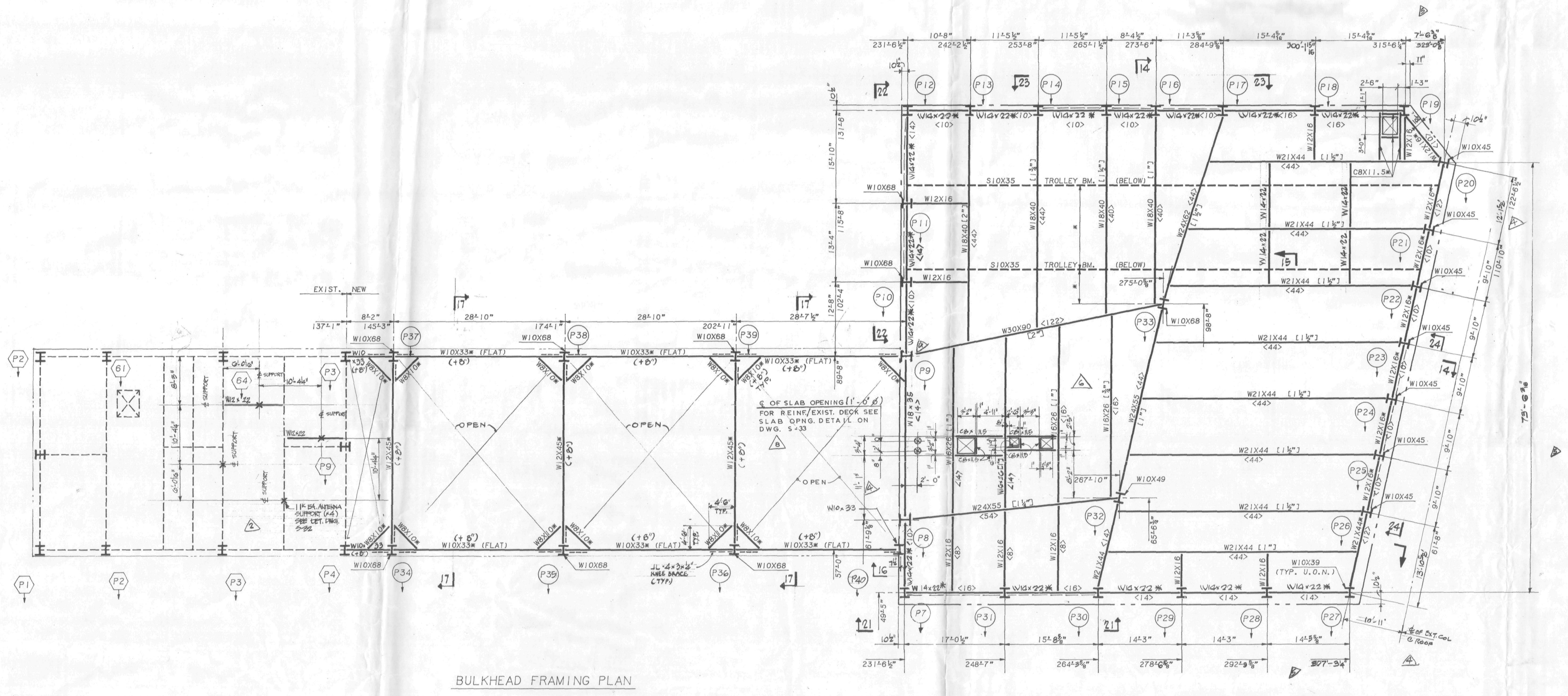
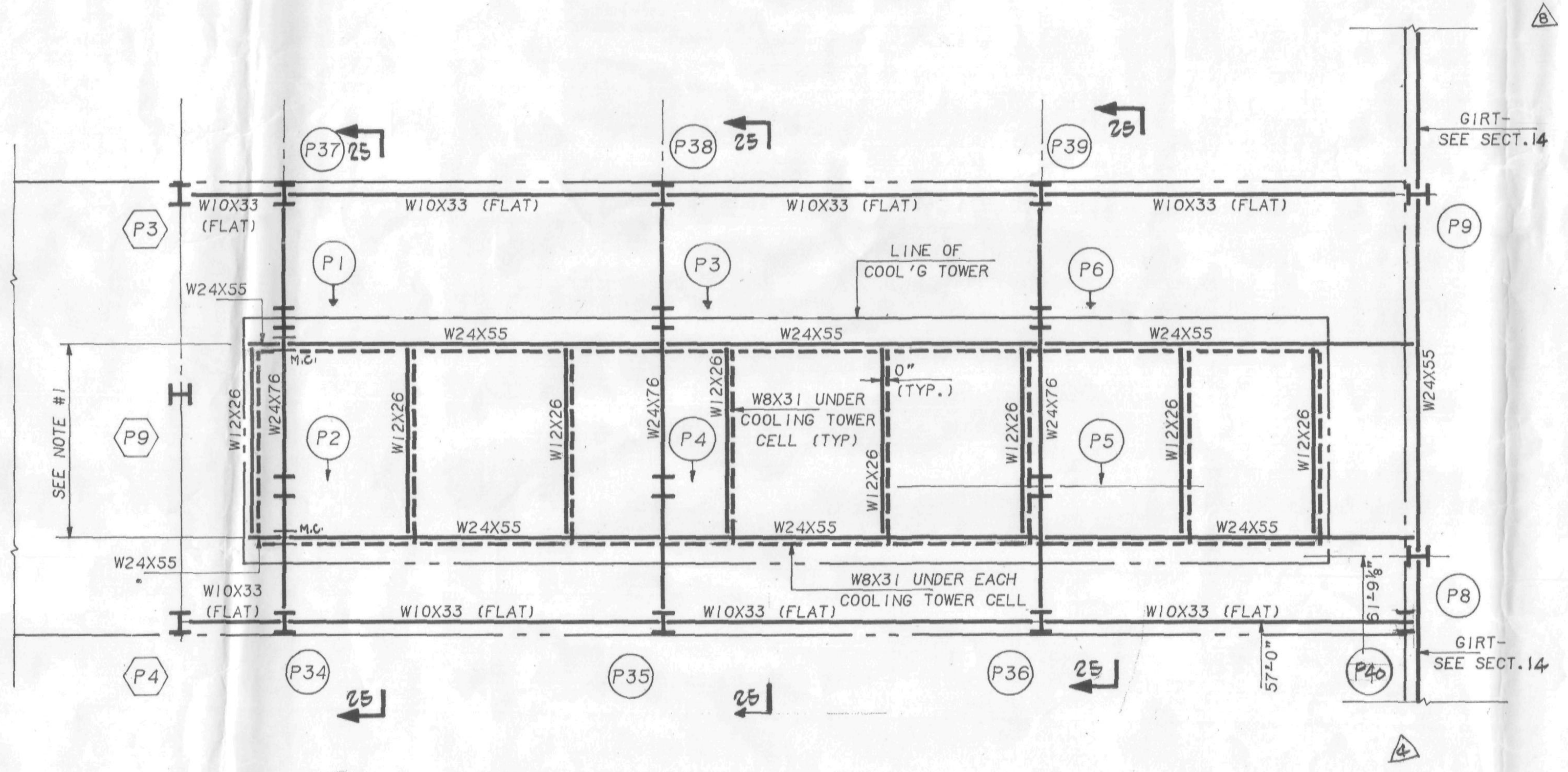


BULKHEAD FRAMING PLAN

NOTES:

1. SLAB SHALL BE 5½" (3"+2½") MIN. THICK STONE CONC. HAVING A COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS PLACED OVER 3" DEEP, 20 GAUGE COMPOSITE METAL DECK REINF. WITH 6X6-W2.4XW2.4 W.W.F. (U.O.N.) WHERE NOTED ON PLAN, TOP OF STRUCTUREAL SLAB SLOPES. H.P. EL. = 946'-6½" AND L.P. EL. = 946'-4" U.O.N. ON PLAN. SEE ARCH. DWGS. FOR SLOPE.
2. TOP OF STEEL SHALL BE AT EL. 945'-10½" UNLESS NOTED THUS (±...) INDICATING DISTANCE ABOVE OR BELOW EL. 946'-4".
3. ALL BEAMS SHALL BE ASTM 572, GRADE 50 STEEL U.O.N. THUS * INDICATING A36 STEEL.
4. FOR TYPICAL SUPERSTRUCTURE DETAILS SEE DWG. S-32 & S-33. FOR SUPERSTRUCTURE GENERAL NOTES SEE DWG. S-32.
5. <...> INDICATES SHEAR CONNECTORS.
6. [...] INDICATES CAMBER.
7. FLOOR SLAB SHALL BE SHORED AS PER MANUFACTURER'S REQUIREMENTS.
8. ALL POSTS SHALL BE W10X39 U.O.N. ON PLAN.
9. (P..) INDICATES NEW POST GOING DOWN.
10. * TROLLEY BEAM LOCATION TO BE COORDINATED WITH CHILLER SHOP DGWS.



COOLING TOWER SUPPORT FRAMING PLAN

NOTES:

1. LOCATION OF COOLING TOWER SUPPORT BEAMS TO BE COORDINATED WITH COOLING TOWER SHOP DRAWINGS.
2. FOR TOP OF STEEL EL. SEE MECHANICAL DWGS
3. ALL STEEL BEAMS SHALL BE ASTM A36 (fy: 36) U.O.N. STEEL BEAMS THUS NOTED (*) IN PLAN SHALL BE ASTM A572 GRADE 50.
4. ALL BOLT HOLES REQUIRED FOR COOLING TOWER SHALL BE PROVIDED AS PER CERTIFIED COOLING TOWER SHOP DWGS.

6.9.95

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IRWIN G. CANTOR No. 35480 LICENSED PROFESSIONAL ENGINEER

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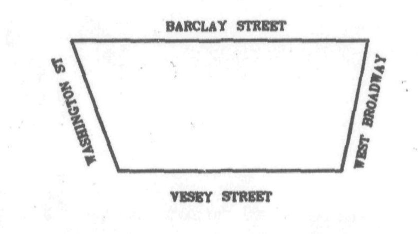

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
	6.9.95	AS BUILT-REF. ISSUE 11.5.93
	11.5.93	ISSUED FOR P. A. REVIEW
8	9-18-90	ISSUED FOR BULLETIN #120
7	8-17-90	ISSUED FOR BULLETIN #116
6	7-3-90	ISSUED FOR BULLETIN #103
5	8/15/89	REVISED AS CIRCLED
4	5-22-89	REVISED AS CIRCLED
3	4/6/89	REVISED AS CIRCLED
2	3/1/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

BULKHEAD FRAMING PLANS

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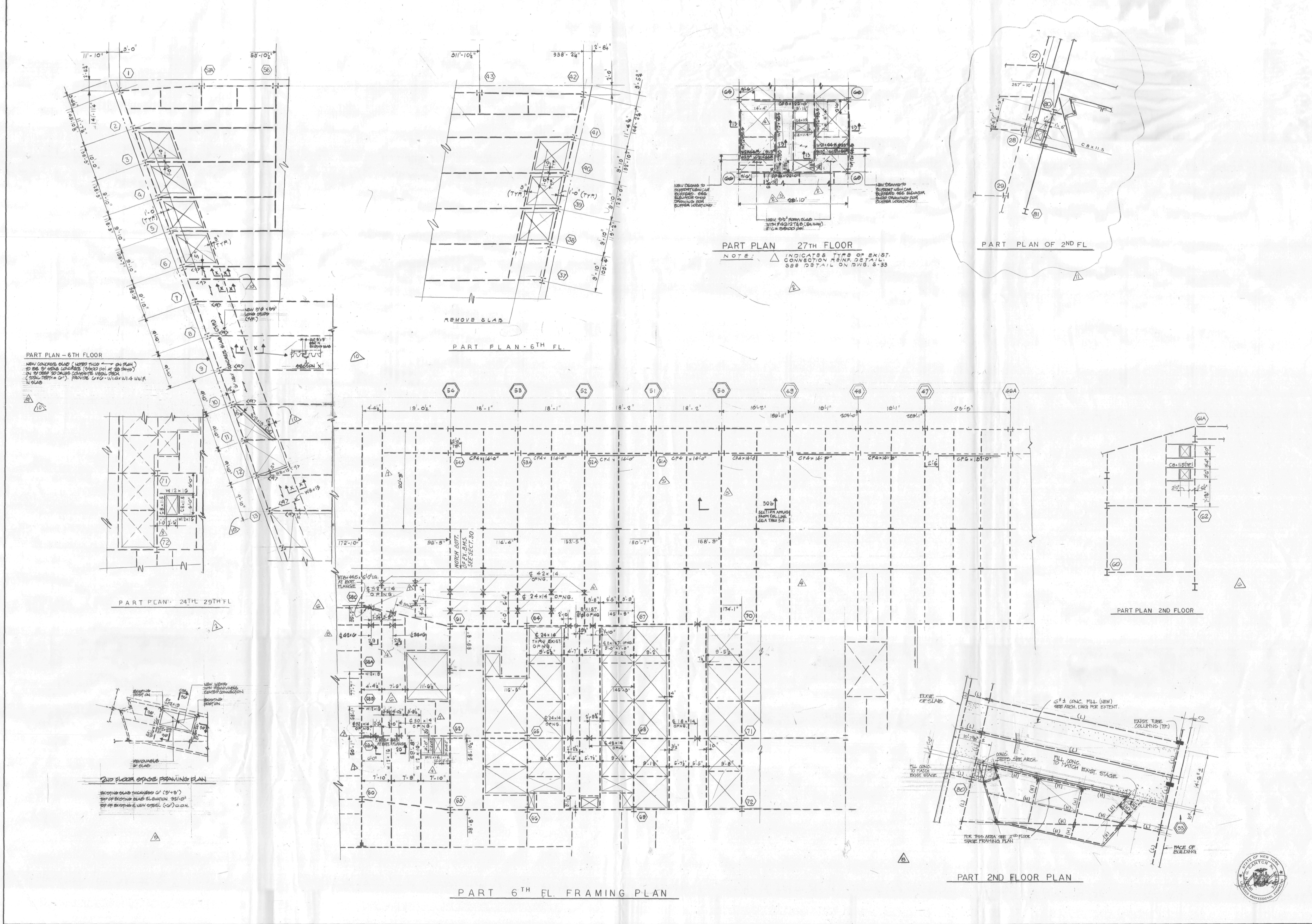

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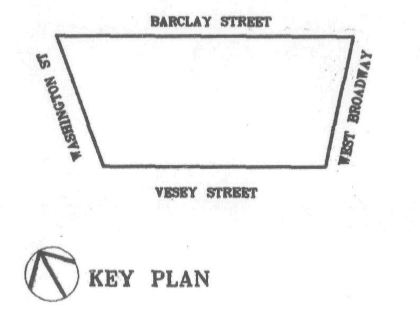

NOTES

LEGEND

No.	Date	Revision
11	6-7-90	ISSUED FOR BULLETIN No 94
10	12/8/89	ISSUED BULLETIN No
9	11/22/89	ISSUED BULLETIN NO. 12
8	10/9/89	REVISED AS CIRCLED
7	8/15/89	REVISED AS CIRCLED
6	6-12-89	REVISED AS CIRCLED
5	5-22-89	REVISED AS CIRCLED
4	4-6-89	REVISED AS CIRCLED
	4-4-89	ISSUED TO CON EDISON FOR APPROVAL
3	3/1/89	REVISED AS CIRCLED
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	REVISED AS CIRCLED FOR SHUTTLE ELEV.
'	12/19/88	ISSUED TO P.A.

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

PART PLANS

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#88051 202

Column schedule: for each column the E sub-column carries the steel section (W14 / X… over each two-storey tier) and the N sub-column carries the handwritten load figure. △2 = revision 2 mark.

COL. NO. / FLOOR	1 E	1 N	2 E	2 N	3 E	3 N	4 E	4 N	5 E	5 N	6 E	6 N	7 E	7 N	8 E	8 N
MAIN ROOF																
47TH FL. (14'-10")	W14 X90	38	W14 X90	31	W14 X90	24	W14 X90	25	W14 X90	62	W14 X109	40	W14 X109	32	W14 X109	30
46TH FL. (12'-9")	X109	78	X109	74	X109	62	X109	59	X109	145	X145	90	X145	74	X145	69
45TH FL. (12'-9")	W14	120	W14	113	W14	96	W14	90	W14	216	W14	134 △2	W14	111	W14	103
44TH FL. (12'-9")	X159	157	X132	153 △2	X132	132 △2	X132	121	X176	297 △2	X176	183	X193	147	X193	136
43RD FL. (12'-9")	W14	220	W14	222	W14	192	W14	179	W14	451	W14	249	W14	183	W14	170
42ND FL. (12'-9")	X193	252	X176	252	X176	219	X176	205	X193	508	X193	289	X257	219	X257	203
41ST FL. (12'-9")	W14	283	W14	282	W14	246	W14	231	W14	566	W14	330	W14	255	W14	236
40TH FL. (12'-9")	X233	315	X211	312	X211	273	X211	257	X257	623	X257	371	X311	290	X311	269
39TH FL. (12'-9")	W14	347	W14	341	W14	300	W14	283	W14	680	W14	412	W14	326	W14	303
38TH FL. (12'-9")	X283	364	X233	355	X233	330	X257	311	X257	744	X311	454	X342	362	X342	336
37TH FL. (12'-9")	W14	388	W14	387	W14	357	W14	336	W14	801	W14	495	W14	398	W14	369
36TH FL. (12'-9")	X342	430	X283	416	X283	384	X311	362	X311	859	X342	536	X370	434	X370	402
35TH FL. (12'-9")	W14	465	W14	461	W14	414	W14	391	W14	916	W14	576	W14	469	W14	435
34TH FL. (12'-9")	X398	527	X311	543	X311	481	X342	453	X342	1081	X370	642	X370	505	X370	469
33RD FL. (12'-9")	W14	587	W14	612	W14	521	W14	493	W14	1123	W14	683	W14	541	W14	502
32ND FL. (12'-9")	X455	620	X342	642	X342	548	X342	519	X370	1281	X370	723	X398	577	X398	535
31ST FL. (12'-9")	W14	650	W14	672	W14	575	W14	544	W14	1338	W14	764	W14	613	W14	568
EL. 309'-3"		683 △2		702		602		570		1395		805		648		601

COL. NO. / FLOOR	9 E	9 N	10 E	10 N	11 E	11 N	12 E	12 N	13 E	13 N	14 E	14 N	14A E	14A N
MAIN ROOF														
47TH FL. (14'-10")	W14 X109	27	W14 X109	27	W14 X109	25	W14 X90	24	W14 X90	23	W14 X90	21	W14 X90	18
46TH FL. (12'-9")	X145	63	X145	61	X145	58	X109	54	X109	50	X109	47	X109	39
45TH FL. (12'-9")	W14	94	W14	92	W14	89	W14	82	W14	77	W14	72	W14	59
44TH FL. (12'-9")	X193	125	X193	122	X176	118	X176	109	X132	103	X132	97	X132	80
43RD FL. (12'-9")	W14	156	W14	152	W14	146	W14	136	W14	128	W14	121	W14	100
42ND FL. (12'-9")	X257	183	X257	178	X193	171	X193	159	X176	150	X176	143	X176	118
41ST FL. (12'-9")	W14	209	W14	204	W14	195	W14	182	W14	172	W14	164	W14	136
40TH FL. (12'-9")	X311	236	X311	230	X257	220	X257	206	X211	194	X211	184	X211	153
39TH FL. (12'-9")	W14	262	W14	256	W14	245	W14	229	W14	216	W14	205	W14	171
38TH FL. (12'-9")	X342	288	X342	282	X311	269	X257	253	X257	238	X233	226	X283	188
37TH FL. (12'-9")	W14	315	W14	308	W14	294	W14	276	W14	260	W14	247	W14	205
36TH FL. (12'-9")	X370	341	X370	335	X342	319	X311	299	X311	282	X283	268	X283	223
35TH FL. (12'-9")	W14	367	W14	361	W14	343	W14	323	W14	304	W14	289	W14	240
34TH FL. (12'-9")	X370	395	X370	390	X370	371	X342	349	X342	329	X311	312	X311	259
33RD FL. (12'-9")	W14	422	W14	416	W14	396	W14	373	W14	351	W14	332	W14	277
32ND FL. (12'-9")	X398	452	X398	443	X370	421	X370	396	X342	373	X342	353	X342	294
31ST FL. (12'-9")	W14	483	W14	469	W14	445	W14	419	W14	395	W14	374	W14	311
EL. 309'-3"		513 △2		495		470		443		417		395		329

COL. NO. / FLOOR	15 E	15 N	16 E	16 N	17 E	17 N	17A E	17A N	18 E	18 N	18A E	18A N	19 E	19 N	19A E	19A N	20 E	20 N	21 E	21 N	21A E	21A N
MAIN ROOF																						
47TH FL. (14'-10")	W14 X90	16																				
46TH FL. (12'-9")	X109	44																				
45TH FL. (12'-9")	W14	81	W14 X109	102	W14 X120	97			W14 X159	112			W14 X159	112			W14 X176	110	W14 X176	110		
44TH FL. (12'-9")	X159	116	X159	152	X159	146			X176	162			X176	162			X211	167	X211	167		
43RD FL. (12'-9")	W14	150	W14	203	W14	195			W14	212			W14	212			W14	223	W14	223		
42ND FL. (12'-9")	X193	180	X193	244	X193	235			X211	266			X211	266			X233	272	X233	229		
41ST FL. (12'-9")	W14	210	W14	286	W14	275			W14	312			W14	312			W14	318	W14	285		
40TH FL. (12'-9")	X233	240	X233	327	X233	315			X233	366			X233	366			X257	367	X257	291		
39TH FL. (12'-9")	W14	270	W14	369	W14	355			W14	412			W14	412			W14	414	W14	347		
38TH FL. (12'-9")	X283	300	X311	410	X311	396			X311	466			X311	466			X311	463	X311	353		
37TH FL. (12'-9")	W14	330	W14	452	W14	436			W14	512			W14	512			W14	509	W14	408		
36TH FL. (12'-9")	X342	360	X398	493	X370	476			X370	558			X342	558			X342	556	X342	454		
35TH FL. (12'-9")	W14	390	W14	534	W14	516			W14	605			W14	605			W14	612	W14	510		
34TH FL. (12'-9")	X398	424	X455	585	X398	565			X398	661			X370	661			X370	668	X370	567		
33RD FL. (12'-9")	W14	454	W14	626	W14	605			W14	707			W14	707			W14	714	W14	613		
32ND FL. (12'-9")	X455	484	X500	668	X426	645			X426	754			X398	754			X398	761	X398	659		
31ST FL. (12'-9")	W14	514	W14	709	W14	685			W14	800			W14	800			W14	807	W14	706		
EL. 309'-3"		544		751		726				846				846				853		752		

COL. NO. / FLOOR	22 E	22 N	22A E	22A N	23 E	23 N	23A E	23A N	24 E	24 N	24A E	24A N	25 E	25 N	25A E	25A N
MAIN ROOF																
47TH FL. (14'-10")																
46TH FL. (12'-9")																
45TH FL. (12'-9")	14 X176	110			W14 X176	110			W14 X159	128			W14 X159	128		
44TH FL. (12'-9")	X211	167			X211	167			X176	192			X176	192		
43RD FL. (12'-9")	W14	223			W14	223			W14	257			W14	257		
42ND FL. (12'-9")	X233	229			X233	229			X211	264			X211	264		
41ST FL. (12'-9")	W14	285			W14	285			W14	328			W14	328		
40TH FL. (12'-9")	X257	291			X257	291			X233	335			X233	335		
39TH FL. (12'-9")	W14	347			W14	347			W14	400			W14	400		
38TH FL. (12'-9")	X145	353			X145	353			X145	407			X311	407		
37TH FL. (12'-9")	W14	408			W14	408			W14	472			W14	472		
36TH FL. (12'-9")	X342	454			X342	454			X342	525			X370	525		
35TH FL. (12'-9")	W14	510			W14	510			W14	589			W14	589		
34TH FL. (12'-9")	X370	567			X370	567			X370	654			X398	654		
33RD FL. (12'-9")	W14	613			W14	613			W14	707			W14	707		
32ND FL. (12'-9")	X398	659			X398	659			X398	760			X426	760		
31ST FL. (12'-9")	W14	706			W14	706			W14	813			W14	813		
EL. 309'-3"		752				752				867				867		

COL. NO. / FLOOR	26 E	26 N	27 E	27 N	28 E	28 N	29 E	29 N	30 E	30 N	31 E	31 N	32 E	32 N
MAIN ROOF														35
47TH FL. (14'-10")					W14 X90	5	W14 X90	14	W14 X90	11	W14 X90	31	W14 X90	76
46TH FL. (12'-9")					X109	29	X109	29	X109	28	X109	70	X109	121
45TH FL. (12'-9")	W14 X120	128	W14 X109	129	W14	93	W14	50	W14	48	W14	127	W14	167
44TH FL. (12'-9")	X159	209	X159	153	X159	128	X132	95	X132	91	X132	171	X176	212
43RD FL. (12'-9")	W14	291	W14	177	W14	162	W14	140	W14	133	W14	221	W14	256
42ND FL. (12'-9")	X193	297	X193	184	X193	195	X176	182	X176	173	X176	263	X193	299
41ST FL. (12'-9")	W14	378	W14	209	W14	230	W14	227	W14	215	W14	313	W14	344
40TH FL. (12'-9")	X233	384	X233	216	X233	263	X211	269	X211	255	X211	355	X257	387
39TH FL. (12'-9")	W14	466	W14	240	W14	297	W14	314	W14	297	W14	406	W14	431
38TH FL. (12'-9")	X145	472	X311	247	X283	331	X233	357	X233	337	X283	447	X283	479
37TH FL. (12'-9")	W14	553	W14	271	W14	365	W14	401	W14	379	W14	491	W14	519
36TH FL. (12'-9")	X370	619	X398	293	X342	396	X283	439	X283	414	X311	532	X311	560
35TH FL. (12'-9")	W14	701	W14	317	W14	430	W14	483	W14	456	W14	575	W14	605
34TH FL. (12'-9")	X398	782	X455	341	X398	464	X311	527	X311	497	X342	615	X342	649
33RD FL. (12'-9")	W14	848	W14	363	W14	495	W14	564	W14	532	W14	655	W14	695
32ND FL. (12'-9")	X426	915	X500	385	X455	526	X342	601	X342	567	X342	695	X370	741
31ST FL. (12'-9")	W14	981	W14	407	W14	556	W14	638	W14	602	W14	735	W14	787
EL. 309'-3"		1047		428		587		675		637		775		833

(1ST DIMENSION PARALLEL TO WEB)

BASE ℄ FLOOR

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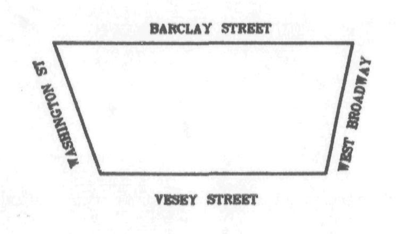

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
2	3/11/88	REVISED AS CLOUDED
	1/3/88	ISSUED FOR CONST.
1	12/18/87	[illegible]

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE # 1

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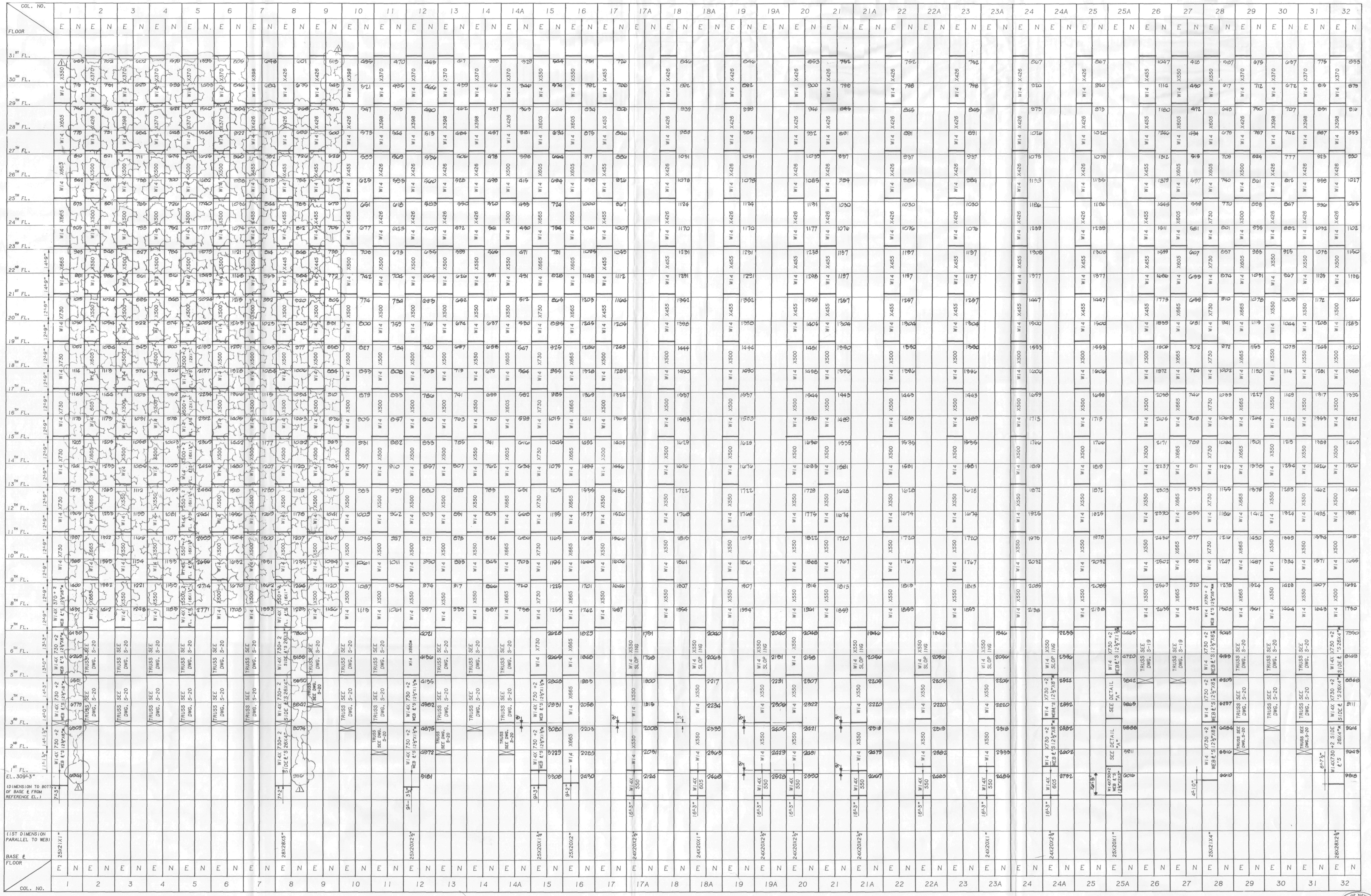
Project No. | Sheet No. S-26
Date:
Scale:

88057

WTCI-2-SOM



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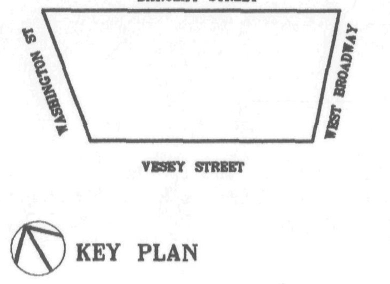

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
1	3/1/89	REVISED AS CLOUDED
	1/9/89	ISSUED FOR CONST.
	12/19/88	[illegible]

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #2

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Project No.: | Sheet No.: S-27
Date:
Scale:

88057

WTC1-2-SOM

Column Schedule #3

All shafts W14. Sizes are listed by column (E face) for each two-storey tier; columns 44A, 45A, 46A, 47A, 48A, 49A, 50A, 51A, 52A, 53A, 54A, 55A and 57A carry no shaft above the 7th floor.

Tier (label floor)	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
30TH FL. (29–31)	W14 X730	W14 X398	W14 X426	W14 X398	W14 X370	W14 X370	W14 X370	W14 X370	W14 X370	W14 X550	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455	W14 X455
28TH FL. (27–29)	W14 X398	W14 X426	W14 X426	W14 X426	W14 X398	W14 X398	W14 X398	W14 X398	W14 X426	W14 X605	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500
26TH FL. (25–27)	W14 X426	W14 X455	W14 X455	W14 X455	W14 X426	W14 X426	W14 X426	W14 X426	W14 X500	W14 X605	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500
24TH FL. (23–25)	W14 X426	W14 X455	W14 X455	W14 X455	W14 X426	W14 X426	W14 X426	W14 X426	W14 X500	W14 X730	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500
22ND FL. (21–23)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X605	W14 X730	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550
20TH FL. (19–21)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550
18TH FL. (17–19)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730	W14 X605	W14 X605	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X605	W14 X605
16TH FL. (15–17)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730	W14 X605	W14 X605	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X605	W14 X605
14TH FL. (13–15)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730	W14 X605	W14 X605	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X550	W14 X605	W14 X605
12TH FL. (11–13)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730	W14 X665	W14 X665	W14 X550 +2 WEB ℄'S 12X1"	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X550 +2 WEB ℄'S 12X1"	W14 X665	W14 X665
10TH FL. (9–11)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730	W14 X665	W14 X665	W14 X550 +2 WEB ℄'S 12X1"	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X550 +2 WEB ℄'S 12X1"	W14 X665	W14 X665
8TH FL. (7–9)	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X500	W14 X550	W14 X550	W14 X665	W14 X730 +2 WEB ℄'S 12½"X6"**	W14 X665	W14 X665	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X605	W14 X665	W14 X665

At the 7th floor, columns 47A, 48A, 49A, 50A, 51A, 52A, 53A and 54A: MG-27, SEE DWG S-23.

Lower floors (EL. 309'-3" reference):

Column	5th–7th FL.	3rd–5th FL.	1st–3rd FL.	Dimension to bott. of base ℄ from reference EL.	Base ℄ (1st dimension parallel to web)
33	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20		
34	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20			
35	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20			
36	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20			
37	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20		
38	W14X 730 +2 SIDE ℄'S 26X4"*	W14X 730 +2 SIDE ℄'S 26X4"*	W14X 730 +2 SIDE ℄'S 26X4"*	6'-7½"	28X30X2½"
39	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20		
40	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20			
41	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20	TRUSS SEE DWG. S-20		
42	W14X 730 +2 WEB ℄'S 12½"X6"*	W14X 730 +2 WEB ℄'S 12½"X8"*	W14X 730 +2 WEB ℄'S 12½"X8"*	4'-10"	25X21X4"
43	TRUSS SEE DWG. S-19				
44A	W14 X730* SLOP ING	W14 X730 +2 WEB ℄'S 12½"X1½"*	W14 X730 +2 WEB ℄'S 12½"X1½"*		25X20X1"
45A	W14 X605 SLOP ING	W14 X730	W14 X730	11'-2"	25X20X1½"
46A	W14 X665 SLOP ING	W14 X665	W14X 730+2 ℄'S 12½"X6½" X4'-0" (SEE DET. DWG. S-17A)	11'-2"	25X24X1½"
47A	W14X 665	W14 X665	EXIST. COL. (2")		
48A	W14X 665	W14 X665	EXIST. COL. (2")		
49A	W14X 665	W14 X665	EXIST. COL. (2")		
50A	W14X 665	W14 X665	EXIST. COL. (2")		
51A	W14X 665	W14 X665	EXIST. COL. (2")		
52A	W14X 665	W14 X665	EXIST. COL. (2")		
53A	W14X 665	W14 X665	EXIST. COL. (2")		
54A	W14X 665	W14 X665	EXIST. COL. (2")		
55A	W14 X730* SLOP ING	W14X 730 +2 WEB ℄'S 12½"X1"*	W14 X730 + 2 WEB ℄'S 12½" X1"*	11'-2"	25X20X1"
56	TRUSS SEE DWG. S-19				
57A	W14 X730 SLOP ING	W14 X730	W14 X730	11'-2"	25X20X1½"

NOTES

LEGEND

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7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048

KEY PLAN (BARCLAY STREET, WEST BROADWAY, VESEY STREET, WASHINGTON ST.)

No.	Date	Revision
2	3/1/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/19/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BUILDING MODIFICATIONS

SOM — SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

STATE OF NEW YORK — IRWIN G. CANTOR — LICENSED PROFESSIONAL ENGINEER

COLUMN SCHEDULE #3

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Project No.:
Date:
Scale:
Sheet No. S-28

88057

Each cell gives the E entry (section), then the N entry (load figure).

FLOOR	Story ht.	33	34	35	36	37	38	39	40
MAIN ROOF									
47TH FL.	14'-10"	W14 X109, 93	W14 X109, 76	W14 X109, 76	W14 X109, 93	W14 X109, 89	W14 X90, 93	W14 X90, 93	W14 X90, 89
46TH FL.	12'-9"	X145, 137	X145, 120	X145, 121	X145, 137	X145, 133	X109, 137	X109, 137	X109, 133
45TH FL.	14'-3"	W14, 181	W14, 166	W14, 166	W14, 182	W14, 180	W14, 182	W14, 182	W14, 180
44TH FL.	12'-9"	X176, 226	X193, 211	X193, 211	X193, 227	X176, 233	X176, 227	X132, 227	X132, 233
43RD FL.	12'-9"	W14, 271	W14, 267	W14, 255	W14, 272	W14, 304	W14, 272	W14, 272	W14, 304
42ND FL.	12'-9"	X193, 314	X342, 310	X342, 298	X342, 315	X193, 347	X193, 315	X176, 316	X176, 347
41ST FL.	12'-9"	W14, 358	W14, 367	W14, 343	W14, 359	W14, 419	W14, 359	W14, 359	W14, 419
40TH FL.	12'-9"	X257, 401	X311, 410	X311, 386	X311, 402	X257, 462	X257, 402	X211, 402	X211, 462
39TH FL.	12'-9"	W14, 446	W14, 466	W14, 430	W14, 447	W14, 533	W14, 447	W14, 447	W14, 533
38TH FL.	12'-9"	X311, 490	X342, 509	X342, 473	X342, 490	X311, 577	X283, 490	X283, 490	X233, 577
37TH FL.	12'-9"	W14, 535	W14, 554	W14, 518	W14, 534	W14, 622	W14, 534	W14, 534	W14, 622
36TH FL.	12'-9"	X342, 572	X370, 591	X370, 555	X370, 572	X370, 660	X311, 572	X311, 572	X283, 660
35TH FL.	12'-9"	W14, 616	W14, 636	W14, 600	W14, 616	W14, 705	W14, 616	W14, 616	W14, 705
34TH FL.	12'-9"	X370, 661	X370, 680	X370, 644	X370, 661	X370, 750	X342, 661	X342, 661	X311, 750
33RD FL.	12'-9"	W14, 709	W14, 728	W14, 688	W14, 698	W14, 788	W14, 698	W14, 698	W14, 788
32ND FL.	12'-9"	X370, 756	X398, 776	X398, 731	X398, 735	X370, 826	X370, 735	X342, 735	X342, 826
31ST FL.	14'-9"	W14, 804	W14, 824	W14, 775	W14, 773	W14, 863	W14, 773	W14, 773	W14, 863

FLOOR	41	42	43	44	44A	45	45A	46	46A
47TH FL.	W14 X90, 89	W14 X90, 60	W14 X99, 44	W14 X99, 276		W14 X99, 207		W14 X99, 199	
46TH FL.	X109, 134	X109, 103	X120, 75	X120, 378		X120, 289		X120, 276	
45TH FL.	W14, 182	W14, 142	W14, 105	W14, 487		W14, 374		W14, 356	
44TH FL.	X132, 228	X159, 180	X145, 133	X145, 595		X159, 460		X159, 436	
43RD FL.	W44, 274	W14, 217	W14, 161	W14, 703 (1- SOUTH SIDE PL. 12 3/4 x 1/2)		W14, 545		W14, 516	
42ND FL.	X176, 319	X193, 254	X159, 189	X159*, 710		X193, 556		X193, 523	
41ST FL.	W14, 365	W14, 292	W14, 217	W14, 819		W14, 642		W14, 603	
40TH FL.	X211, 410	X233, 329	X193, 244	X193*, 826		X233, 653		X233, 610	
39TH FL.	W14, 456	W14, 367	W14, 272	W14, 934		W14, 738		W14, 690	
38TH FL.	X233, 500	X283, 404	X257, 300	X257, 941		X283, 749		X283, 697	
37TH FL.	W14, 547	W14, 442	W14, 328	W14, 1060		W14, 835		W14, 777	
36TH FL.	X283, 585	X342, 476	X283, 357	X283, 1137		X311, 905		X311, 842	
35TH FL.	W14, 631	W14, 514	W14, 381	W14, 1245		W14, 990		W14, 922	
34TH FL.	X311, 678	X398, 552	X370, 410	X370, 1353		X370, 1076		X370, 1002	
33RD FL.	W14, 716	W14, 586	W14, 435	W14, 1441		W14, 1146		W14, 1067	
32ND FL.	X342, 755	X455, 620	X426, 460	X426, 1528		X426, 1216		X426, 1132	
31ST FL.	W14, 793	W14, 654	W14, 485	W14, 1615		W14, 1287		W14, 1197	

FLOOR	47	47A	48	48A	49	49A	50	50A	51	51A
47TH FL.	W14 X120, 20	47	W14 X120, 15		W14 X120, 15		W14 X120, 15		W14 X120, 16	
46TH FL.	X159, 26		X159, 21		X176, 21		X176, 21		X176, 22	
45TH FL.	W14, 108	45	W14, 136		W14, 136		W14, 136		W14, 137	
44TH FL.	X176, 177		X176, 226		X233, 226		X233, 226		X233, 226	
43RD FL.	W14, 253		W14, 300		W14, 300		W14, 300		W14, 300	
42ND FL.	X233, 259	42	X233, 306		X283, 306		X283, 306		X283, 335	
41ST FL.	W14, 335		W14, 380		W14, 380		W14, 380		W14, 381	
40TH FL.	X283, 341	40	X283, 386		X311, 386		X311, 386		X311, 416 40	
39TH FL.	W14, 416		W14, 459		W14, 459		W14, 459		W14, 463	
38TH FL.	X311, 422		X311, 465		X342, 465		X342, 465		X342, 498	
37TH FL.	W14, 498	37	W14, 539		W14, 539		W14, 539		W14, 571	
36TH FL.	X342, 559		X342, 599		X370, 599		X370, 599		X370, 631	
35TH FL.	W14, 635		W14, 673		W14, 673		W14, 673		W14, 676	
34TH FL.	X398, 711	34	X398, 747		X398, 747		X398, 747		X398, 749	
33RD FL.	W14, 772		W14, 807		W14, 807		W14, 807		W14, 809	
32ND FL.	X426, 834	32	X426, 867		X426, 867		X426, 867		X426, 869	
31ST FL.	W14, 895		W14, 927		W14, 927		W14, 927		W14, 928	

FLOOR	52	52A	53	53A	54	54A	55	55A	56	57	57A
47TH FL.	W14 X120, 14		W14 X120, 54		W14 X120, 306		14 X99, 74		W14 X99, 75	W14 X99, 20	
46TH FL.	X159, 20		X159, 76		X120, 395		X120, 366		X120, 157	X120, 44	
45TH FL.	W14, 134	45	W14, 291		W14, 470		W14, 451		W14, 243	W14, 68	
44TH FL.	X176, 224		X176, 380		X159, 544		X159, 536		X145, 329	X145, 91	
43RD FL.	W14, 296		W14, 453		W14, 648		W14, 689		W14, 517	W14, 130	
42ND FL.	X233, 363	42	X233, 519		X193, 708		X193, 758		X159*, 587	X159, 150	
41ST FL.	W14, 422		W14, 578		W14, 768		W14, 827		W14, 657	W14, 170	
40TH FL.	X283, 489		X283, 643		X233, 829		X233, 896		X193, 726	X193, 190	
39TH FL.	W14, 548		W14, 702		W14, 889		W14, 965		W14, 796	W14, 210	
38TH FL.	X311, 615		X311, 768		X283, 926		X283, 1042		X257, 873	X257, 230	
37TH FL.	W14, 674		W14, 827		W14, 986		W14, 1111		W14, 943	W14, 250	
36TH FL.	X342, 733		X342, 886		X311, 1047		X311, 1180		X283, 1012	X283, 270	
35TH FL.	W14, 793		W14, 945		W14, 1106		W14, 1249		W14, 1082	W14, 290	
34TH FL.	X398, 865		X398, 1018		X370, 1209		X370, 1402		X370, 1270	X370, 328	
33RD FL.	W14, 925	33	W14, 1077		W14, 1283		W14, 1475		W14, 1340	W14, 354	
32ND FL.	X426, 984		X426, 1136		X426, 1344		X426, 1544		X426, 1410	X426, 374	
31ST FL.	W14, 1043		W14, 1195		W14, 1404		W14, 1613		W14, 1479	W14, 394 (2)	

EL. 309'-3"
(DIMENSION TO BOTT. OF BASE ℄ FROM REFERENCE EL.)

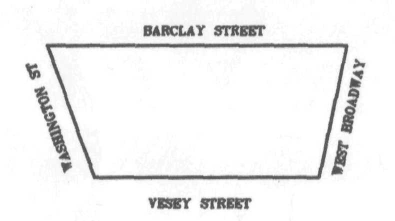
(1ST DIMENSION PARALLEL TO WEB)

BASE ℄ FLOOR

E N (repeated for each column) — COL. NO. 33 34 35 36 37 38 39 40 41 42 43 44 44A 45 45A 46 46A 47 47A 48 48A 49 49A 50 50A 51 51A 52 52A 53 53A 54 54A 55 55A 56 57 57A

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

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	1/3/89	ISSUED FOR CONST.
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220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

STATE OF NEW YORK · I. G. CANTOR No. 32548 · LICENSED PROFESSIONAL ENGINEERS

COLUMN SCHEDULE #4

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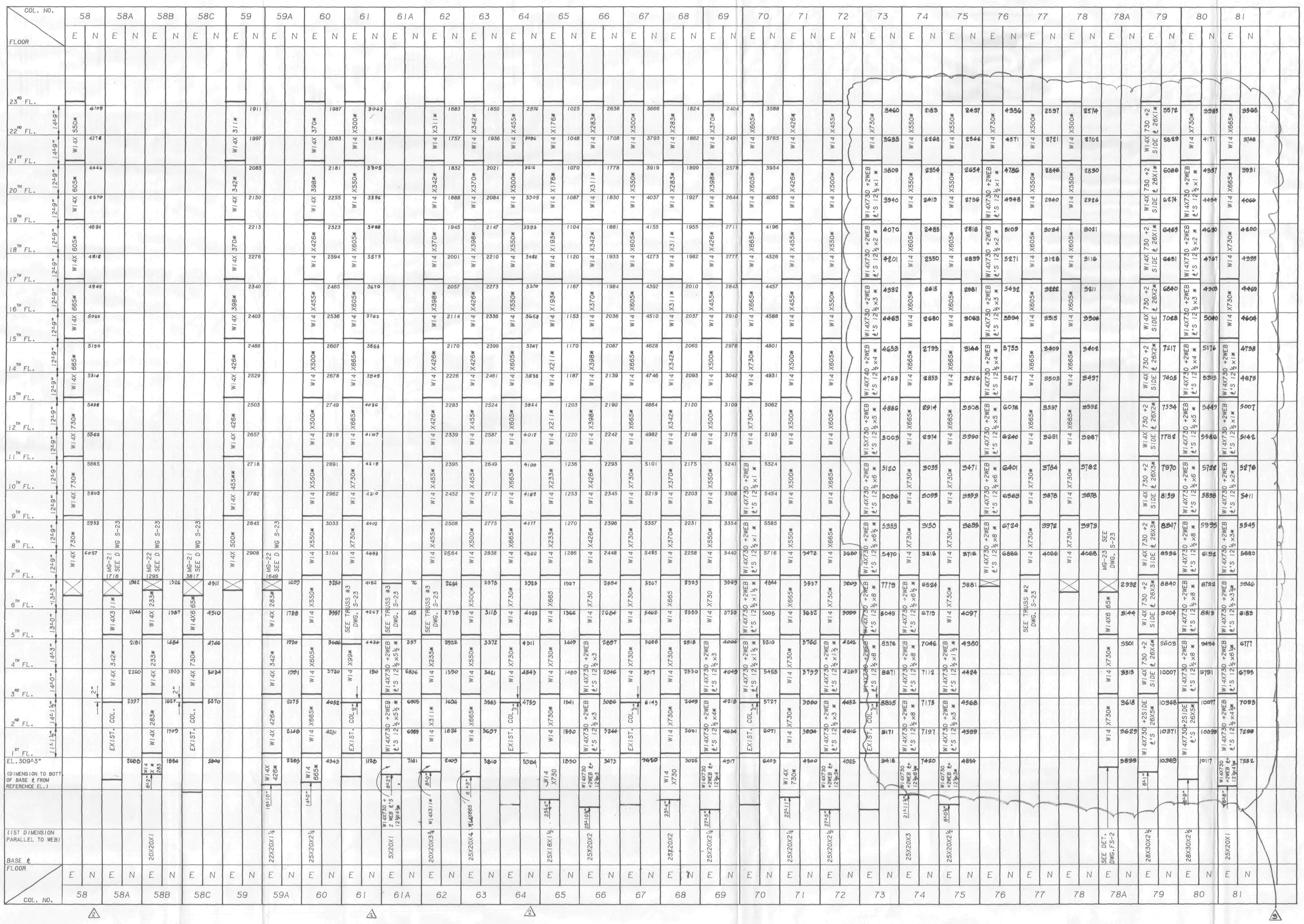
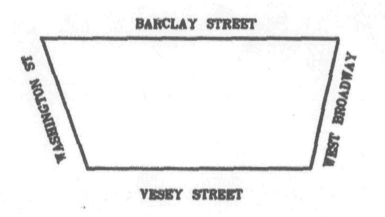
Project No.:
Date:
Scale:
Sheet No. S-29

88057



Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



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LEGEND

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FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #5

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Project No.:
Date:
Scale:
Sheet No. S-30

88057

Column schedule, columns 58–65 (E = existing column; N = new column or column reinforcing / load in kips)

Floor	Story ht.	58 E	58 N	59 E	59 N	60 E	60 N	61 E	61 N	62 E	62 N	63 E	63 N	64 E	64 N	65 E	65 N
BULKHEAD ROOF								W14 X90*	31		29			W14 X90*	35		35
MAIN ROOF	14'-10"	W14 X99*	154	W14 X90*	97	W14 X90*	63		170	W14 X90*	134	W14 X90*	86		186	W14 X90*	225
47TH FL.	12'-9"	W14 X109*	553	W14 X90*	183	W14 X90*	135	W14 X99*	435	W14 X90*	229	W14 X90*	184	W14 X99*	408	W14 X90*	602
46TH FL.	12'-9"		711		264		251		552		300		310		556		624
45TH FL.	12'-9"	W14 X145*	902	W14 X99*	344	W14 X99*	342	W14 X132*	695	W14 X99*	367	W14 X99*	390	W14 X120*	669	W14 X90*	645
44TH FL.	12'-9"		1128		425		432		887		437		470		884		666
43RD FL.	12'-9"	W14 X193*	1262	W14 X109*	495	W14 X109*	503	W14 X159*	978	W14 X109*	497	W14 X109*	535	W14 X145*	973	W14 X99*	683
42ND FL.	12'-9"		1395		565		574		1070		557		601		1061		699
41ST FL.	12'-9"	W14 X233*	1529	W14 X132*	635	W14 X132*	645	W14 X193*	1161	W14 X132*	616	W14 X132*	666	W14 X176*	1149	W14 X99*	716
40TH FL.	12'-9"		1663		706		716		1253		676		731		1238		732
39TH FL.	12'-9"	W14 X283*	1807	W14 X145*	776	W14 X159*	787	W14 X211*	1367	W14 X145*	736	W14 X159*	796	W14 X211*	1326	W14 X109*	749
38TH FL.	12'-9"		1941		846		858		1461		795		861		1417		766
37TH FL.	12'-9"	W14 X311*	2075	W14 X159*	922	W14 X193*	932	W14 X233*	1552	W14 X159*	854	W14 X176*	926	W14 X257*	1506	W14 X109*	782
36TH FL.	12'-9"		2209		992		1003		1644		914		992		1594		799
35TH FL.	12'-9"	W14 X370*	2435	W14 X193*	1072	W14 X211*	1094	W14 X283*	1835	W14 X176*	988	W14 X193*	1074	W14 X283*	1788	W14 X120*	820
34TH FL.	12'-9"		2661		1147		1168		2027		1044		1137		1971		837
33RD FL.	12'-9"	W14 X426*	2795	W14 X211*	1222	W14 X233*	1242	W14 X342*	2119	W14 X193*	1100	W14 X211*	1200	W14 X311*	2059	W14 X132*	853
32ND FL.	12'-9"		2929		1297		1316		2210		1157		1263		2148		870
31ST FL.	12'-9"	W14 X455*	3063	W14 X233*	1372	W14 X257*	1390	W14 X370*	2301	W14 X211*	1213	W14 X233*	1325	W14 X342*	2236	W14 X145*	886
30TH FL.	12'-9"		3197		1446		1464		2393		1270		1388		2324		903
29TH FL.	12'-9"	W14 X500*	3321	W14 X257*	1509	W14 X283*	1535	W14 X398*	2484	W14 X233*	1326	W14 X257*	1451	W14 X370*	2413	W14 X145*	920
28TH FL.	12'-9"		3444		1573		1606		2576		1383		1514		2501		936
27TH FL.	12'-9"	W14 X500*	3568	W14 X283*	1635	W14 X311*	1678	W14 X426*	2667	W14 X257*	1439	W14 X283*	1577	W14 X398*	2590	W14 X159*	953
26TH FL.	12'-9"		3692		1699		1748		2758		1495		1640		2678		969
25TH FL.	12'-9"	W14 X550*	3816	W14 X311*	1762	W14 X342*	1819	W14 X455*	2850	W14 X283*	1551	W14 X311*	1702	W14 X426*	2767	W14 X159*	986
24TH FL.	14'-9"		3940		1825		1890		2941		1608		1765		2855		1003
23RD FL.			4109		1911		1987		3062		1683		1850		2976		1025

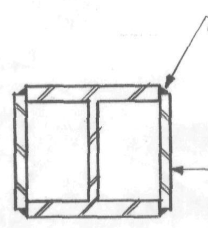
Column schedule, columns 66–73

Floor	66 E	66 N	67 E	67 N	68 E	68 N	69 E	69 N	70 E	70 N	71 E	71 N	72 E	72 N	73 E	73 N
BULKHEAD ROOF		11														
MAIN ROOF	W14 X90*	85	W14 X90*	159	W14 X90*	194	W14 X90*	69	W14 X99*	138	W14 X90*	134	W14 X90*	87	W14 X90*	145
47TH FL.	W14 X99*	236	W14 X99*	367	W14 X90*	510	W14 X90*	183	W14 X99*	216	W14 X90*	256	W14 X99*	217	W14 X109*	223
46TH FL.		356		595		618		342		444		363		398		432
45TH FL.	W14 X99*	422	W14 X132*	730	W14 X99*	668	W14 X99*	434	W14 X132*	605	W14 X99*	467	W14 X120*	524	W14 X145*	596
44TH FL.		487		866		733		527		774		599		635		762
43RD FL.	W14 X109*	543	W14 X159*	1014	W14 X109*	783	W14 X109*	632	W14 X159*	834	W14 X132*	731	W14 X132*	675	W14 X176*	782
42ND FL.		599		1150		834		725		984		852		796		953
41ST FL.	W14 X132*	655	W14 X193*	1297	W14 X132*	884	W14 X132*	830	W14 X193*	1026	W14 X159*	956	W14 X159*	837	W14 X211*	970
40TH FL.		712		1433		935		923		1200		1077		957		1141
39TH FL.	W14 X145*	768	W14 X233*	1569	W14 X159*	985	W14 X159*	1016	W14 X257*	1252	W14 X193*	1182	W14 X193*	998	W14 X257*	1277
38TH FL.		824		1704		1039		1109		1412		1286		1108		1408
37TH FL.	W14 X159*	880	W14 X283*	1991	W14 X176*	1159	W14 X193*	1182	W14 X342*	1648	W14 X233*	1483	W14 X233*	1197	W14 X342*	1538
36TH FL.		936		2109		1211		1275		1807		1570		1308		1669
35TH FL.	W14 X176*	1001	W14 X311*	2228	W14 X193*	1264	W14 X211*	1368	W14 X370*	1968	W14 X257*	1657	W14 X283*	1418	W14 X398*	1832
34TH FL.		1053		2346		1305		1461		2099		1727		1506		1963
33RD FL.	W14 X193*	1104	W14 X342*	2464	W14 X211*	1347	W14 X233*	1554	W14 X398*	2230	W14 X283*	1798	W14 X311*	1594	W14 X455*	2094
32ND FL.		1156		2582		1388		1647		2361		1868		1682		2245
31ST FL.	W14 X211*	1207	W14 X370*	2700	W14 X233*	1429	W14 X257*	1740	W14 X426*	2491	W14 X311*	1939	W14 X342*	1770	W14 X500*	2355
30TH FL.		1259		2831		1621		1919		2624		2090		1939		2486
29TH FL.	W14 X233*	1310	W14 X398*	2949	W14 X257*	1649	W14 X283*	1985	W14 X455*	2755	W14 X342*	2151	W14 X370*	2018	W14 X550*	2617
28TH FL.		1362		3068		1676		2052		2886		2213		2097		2747
27TH FL.	W14 X257*	1413	W14 X426*	3186	W14 X257*	1704	W14 X311*	2118	W14 X500*	3016	W14 X370*	2274	W14 X398*	2176	W14 X605*	2878
26TH FL.		1465		3304		1731		2184		3147		2336		2255		3009
25TH FL.	W14 X283*	1516	W14 X455*	3422	W14 X283*	1759	W14 X342*	2251	W14 X550*	3278	W14 X398*	2397	W14 X426*	2334	W14 X665*	3139
24TH FL.		1568		3540		1787		2317		3409		2485		2413		3273
23RD FL.		1638		3666		1824		2404		3588		2680		2585		3460

Column schedule, columns 74–81

Floor	74 E	74 N	75 E	75 N	76 E	76 N	77 E	77 N	78 E	78 N	79 E	79 N	80 E	80 N	81 E	81 N
BULKHEAD ROOF																
MAIN ROOF	W14 X90*	132	W14 X90*	64	W14 X90*	376	W14 X90*	205	W14 X90*	94	W14 X99*	624	W14 X90*	395	W14 X90*	118
47TH FL.	W14 X90*	236	W14 X99*	183	W14 X120*	582	W14 X90*	329	W14 X90*	220	W14 X132	926	W14 X99*	616	W14 X99*	296
46TH FL.		328		298		839		445		392		1166 2-SIDE PL'S 12¾"x½"		790 2-SIDE PL'S 12¾"x½"		505
45TH FL.	W14 X99*	420	W14 X109*	413	W14 X159*	1033	W14 X99*	562	W14 X99*	511	W14 X193*	1406	W14 X145*	963	W14 X145*	661
44TH FL.		523 2-SIDE PL'S 12¾"x½"		528		1226 2-SIDE PL'S 12¾"x½"		678 2-SIDE PL'S 12¾"x½"		631 2-SIDE PL'S 12¾"x½"		1682 2-SIDE PL'S 12¾"x½"		1162 2-SIDE PL'S 12¾"x½"		838 2-SIDE PL'S 12¾"x½"
43RD FL.	W14 X132*	538	W14 X132*	545	W14 X193*	1288 2-SIDE PL'S 12¾" X½"	W14 X120*	694 2-SIDE PL'S 12¾" X½"	W14 X120*	643 2-SIDE PL'S 12¾" X½"	W14 X257*	1687 2-SIDE PL'S 12¾" X½"	W14 X193*	1167 2-SIDE PL'S 12¾" X½"	W14 X176*	845 2-SIDE PL'S 12¾" X½"
42ND FL.		641		666		1433		811		762		1962		1365		1021
41ST FL.	W14 X176*	645	W14 X176*	683	W14 X257*	1446 2SIDE P/S 12¾ x ½"	W14 X145*	801 2SIDE P/S 12¾ x ½"	W14 X145*	774 2SIDE P/S 12¾ x ½"	W14 X311*	1607 2SIDE P/S 12¾ x ½"	W14 X233*	1570 2SIDE P/S 12¾ x ½"	W14 X211*	1026
40TH FL.		748		804		1639		943		894		2243		1567		1203
39TH FL.	W14 X211*	825	W14 X233*	902	W14 X311*	1758	W14 X176*	1042	W14 X176*	994	W14 X370*	2436	W14 X283*	1709	W14 X257*	1343
38TH FL.		898		994		1952		1136		1088		2623		1846		1477
37TH FL.	W14 X257*	970	W14 X283*	1087	W14 X370*	2105	W14 X233*	1130	W14 X233*	1184	W14 X426*	2813	W14 X342*	1982	W14 X311*	1612
36TH FL.		1043		1180		2258		1324		1279		3002		2124		1746
35TH FL.	W14 X311*	1135	W14 X342*	1293	W14 X426*	2452	W14 X283*	1440	W14 X283*	1399	W14 X455*	3242	W14 X398*	2298	W14 X370*	1902
34TH FL.		1208		1388		2605		1534		1494		3430		2434		2036
33RD FL.	W14 X370*	1280	W14 X370*	1481	W14 X455*	2759	W14 X342*	1628	W14 X342*	1589	W14 X500*	3619	W14 X455*	2570	W14 X426*	2171
32ND FL.		1353		1573		2912		1721		1684		3807		2707		2305
31ST FL.	W14 X398*	1425	W14 X398*	1666	W14 X500*	3066	W14 X370*	1815	W14 X370*	1780	W14 X500*	3996	W14 X500*	2844	W14 X455*	2440
30TH FL.		1488		1759		3219		1909		1875		4184		2980		2574
29TH FL.	W14 X426*	1570	W14 X426*	1852	W14 X550*	3373	W14 X398*	2003	W14 X398*	1970	W14 X605*	4372	W14 X550*	3116	W14 X500*	2709
28TH FL.		1643		1945		3526		2097		2065		4561		3253		2843
27TH FL.	W14 X455*	1715	W14 X455*	2037	W14 X605*	3680	W14 X426*	2190	W14 X426*	2160	W14 X665*	4750	W14 X605*	3390	W14 X550*	2978
26TH FL.		1788		2130		3833		2284		2256		4938		3526		3112
25TH FL.	W14 X500*	1860	W14 X500*	2223	W14 X665*	3987	W14 X455*	2378	W14 X455*	2351	W14 X730*	5127	W14 X665*	3663	W14 X605*	3247
24TH FL.		1943		2316		4140		2472		2446		5315		3799		3381
23RD FL.		2183		2437		4356		2597		2574		5572		3985		3565

NOTES:
1. LEGEND E- INDICATES EXISTING COLUMNS.
   N- INDICATES NEW COLUMN OR COLUMN REINFORCING
2. ALL NEW COVER PLATES SHALL BE A572-GRADE 50
3. FOR GENERAL NOTES & TYPICAL DETAILS SEE DRAWINGS S-32 & S-33
4. ALL COLUMN LOADS ARE SERVICE LOADS IN KIPS.



TYPICAL SIDE PLATE REINFORCING DETAIL

NOTE:
1. - REMOVE EXIST. CONNECTIONS AT 39, 41 & 43RD FL.'S AS REQ'D.
2. - EXTEND COLUMN REINF. AS CLOSE AS POSSIBLE TO THE UNDERSIDE OF EXIST. BEAM AND/OR TOP OF EXIST. SLAB.
3. AT SPLICE LOCATIONS CUT REINFORCING PLATE AS REQUIRED & EXTEND MINIMUM 18" INTO COLUMN BELOW WELD CONT. AS SHOWN ABOVE.

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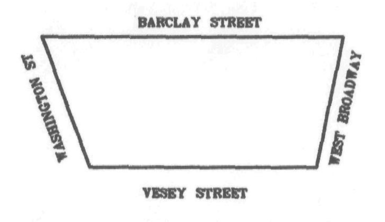

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
3	5/22/89	REVISED AS CIRCLED
2	3/1/89	REVISED AS CIRCLED
1	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	11/21/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP

COLUMN SCHEDULE #6

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Project No.:
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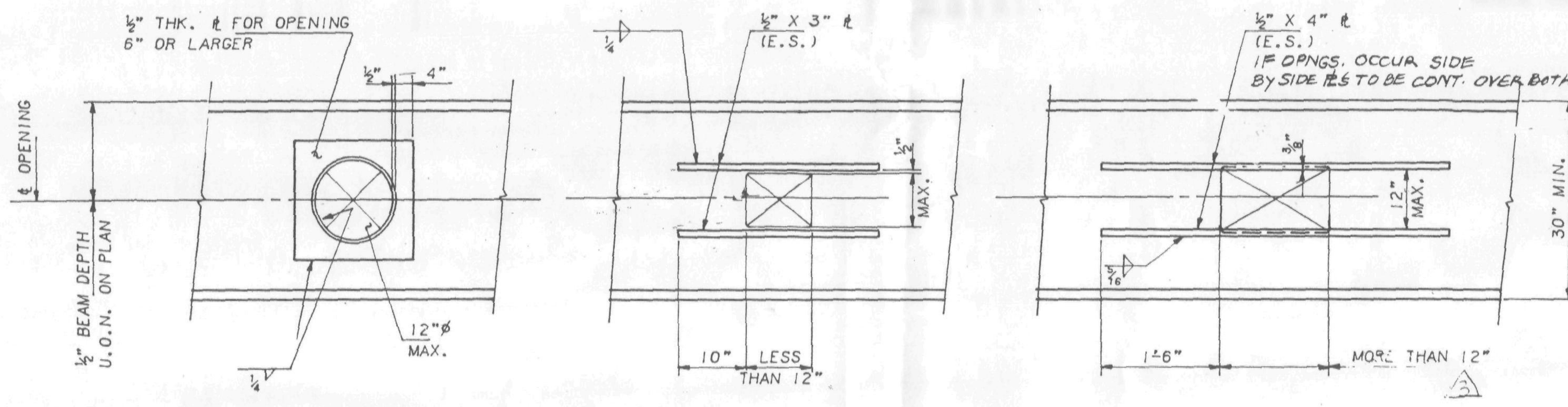
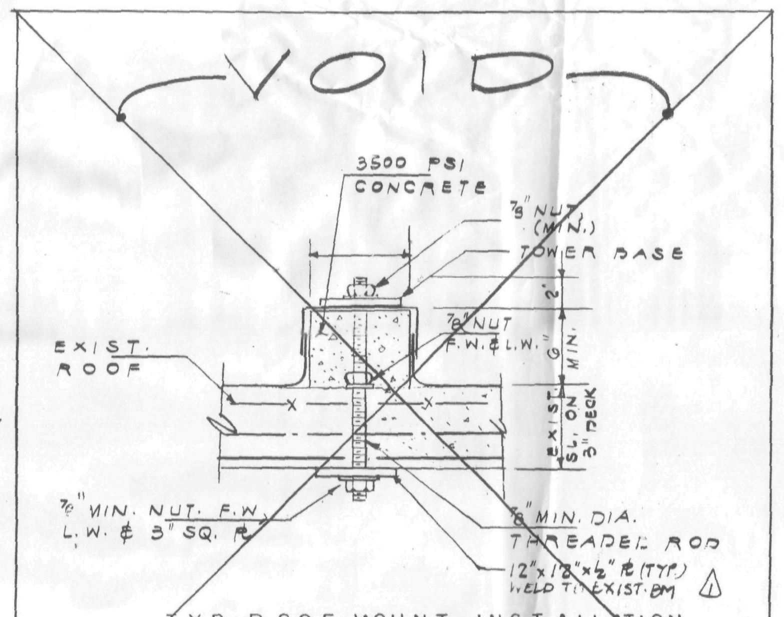


TYP BEAM OPENING DETAILS

REINF. ℄'S TO BE SAME GRADE OF STEEL AS BEAM (TYP.)



TYP. ROOF MOUNT INSTALLATION DETAIL FOR MICROWAVE ANTENNA

SEE COMMUNICATION DWGS FOR LOCATION AND TOTAL NUMBER OF ANCHORS REQ'D

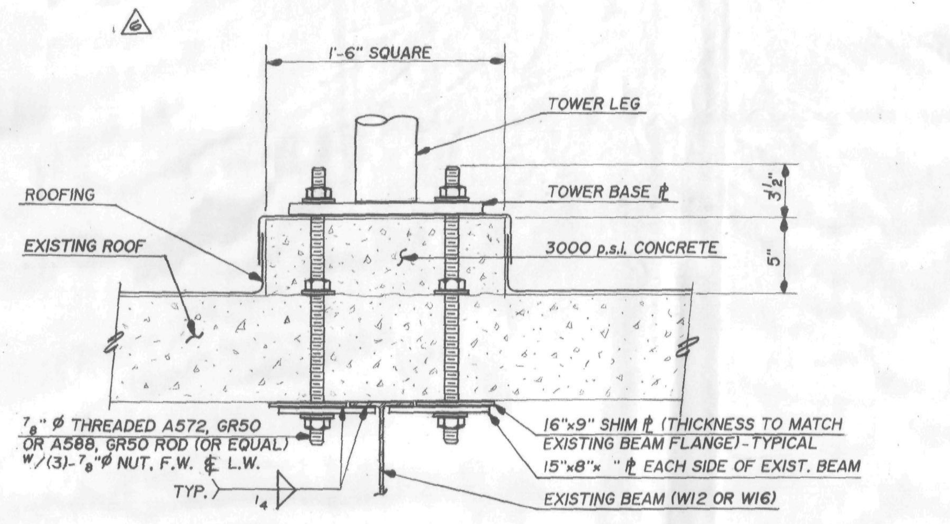
TYPICAL BEAM OPENING DETAILS

1. REINF. PL'S TO BE SAME GRADE OF STEEL AS BEAM (TYP.).
2. ALL FIELD CUT OPENINGS SHALL BE REINF. AS PER DETAILS SHOWN ABOVE, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.
3. DURING ALL FIELD CUTTING OF PENETRATIONS THRU BEAMS THE TEMPERATURE SHALL NOT EXCEED 600 DEGREES F AS MEASURED BY THE THERMOCOUPLES 6" FROM EDGE OF OPENING. @ FOUR CORNERS OF EACH OPENING.
4. NEW REINF. SHALL BE IN PLACE BEFORE CUTTING OPENING IN BEAM WEB.

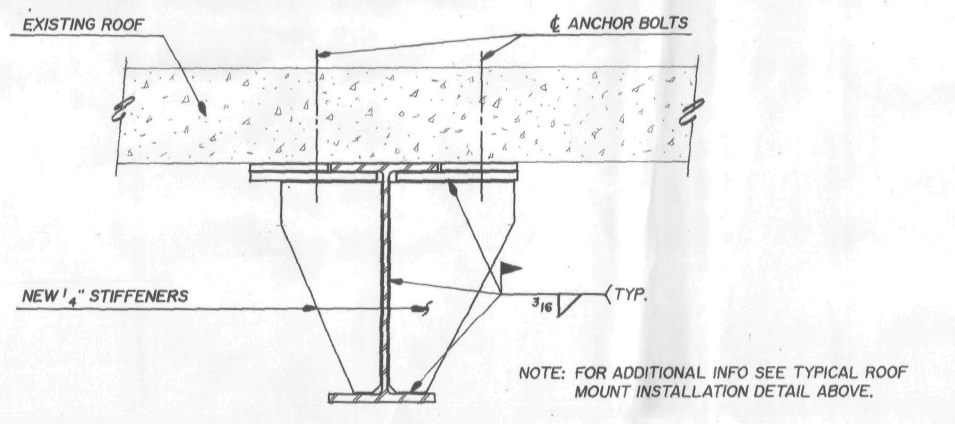
STRUCTURAL STEEL NOTES (CONTINUED):

19. WELD MINIMUM 2-3/8" FITTED STIFFENERS TO EXISTING BEAM SUPPORTING NEW STAIR HANGERS WHERE HANGERS ARE ECCENTRIC WITH RESPECT TO BEAM CENTER LINE.

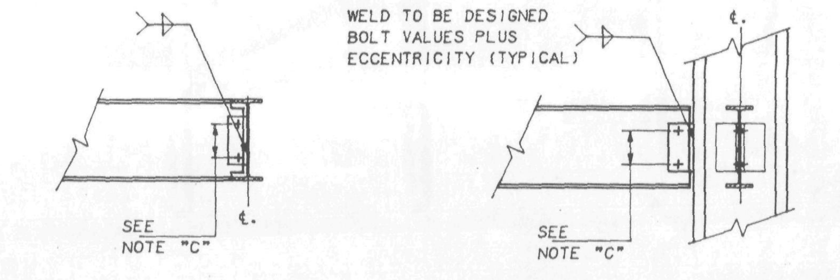
20. SHORE EXISTING BEAM WHERE FITTED STIFFENERS ARE WELDED TO EXISTING BEAMS.



TYPICAL ROOF MOUNT INSTALLATION DETAIL FOR MICROWAVE ANTENNA



TYPICAL STIFFENED DETAIL AT MICROWAVE ANTENNA STEEL SUPPORT



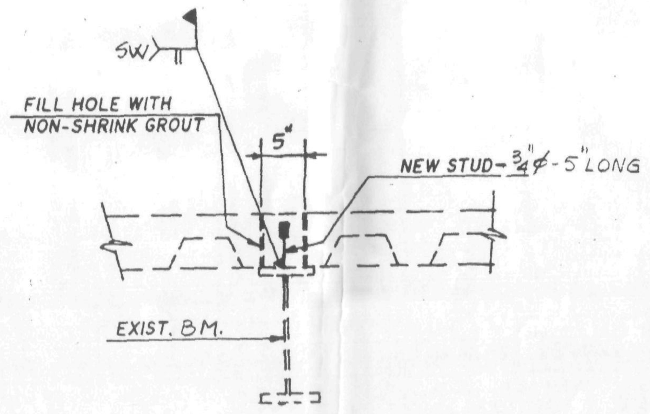
BEAM TO BEAM CONNECTION

BEAM TO COL. CONNECTION

BEAM SIZE	MIN. NO. OF BOLTS "N" SEE NOTE "C" "N"
W36	10
W33	9
W30	8
W27	7
W24	7
W21	6
W18	5
W16	4
W14	3
W12	3

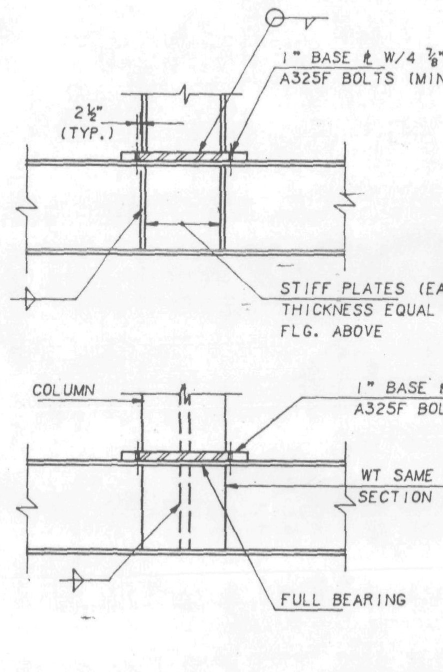
NOTES:

1. SHEAR CONNECTION MUST BE DESIGNED FOR THE GREATEST OF THE FOLLOWING:
   A. FOR COMPOSITE BEAMS - REACTIONS FROM AISC BEAM TABLE X 2.0 AT BEAMS Fy=50 ksi X 1.5 AT BEAMS Fy=36 ksi
   B. FOR NON-COMPOSITE BEAMS - REACTIONS FROM AISC BEAM TABLE X 1.5 AT BEAMS Fy=50ksi X 1.3 AT BEAMS Fy=36ksi
   C. MINIMUM SHEAR CONNECTIONS - SEE TABLE
   D. REACTIONS INDICATED ON DRAWINGS.
2. BOLTS SHALL BE 3/4" ∅ A325 FRICTION TYPE BOLTS MINIMUM (U.O.N.)
3. PROVIDE WEB REINFORCING WHERE REQUIRED DUE TO WEB CUT FOR CONNECTIONS.

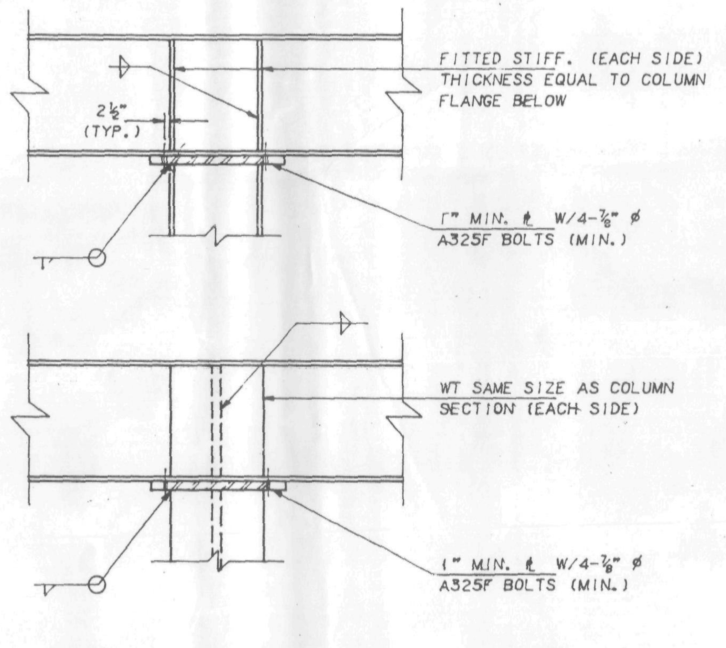


TYPICAL REINFORCING DETAIL OF EXIST. GIRDER OR BEAM

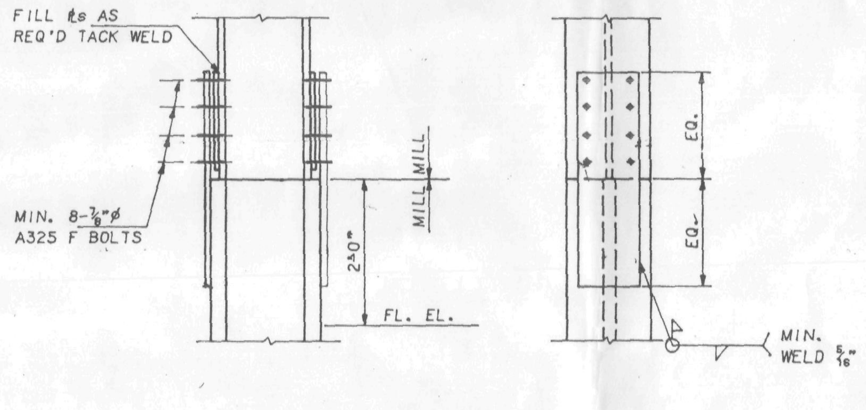
TYPICAL SHEAR CONNECTION DETAILS



TYPICAL DETAIL FOR COLUMN OR POST PICK-UP



TYPICAL DETAIL FOR BEAM OVER COLUMN



TYPICAL COLUMN SPLICE DETAIL

G E N E R A L   N O T E S

S T R U C T U R A L   S T E E L   N O T E S:

1. STRUCTURAL STEEL SHALL BE ASTM A36 HAVING A MINIMUM YIELD POINT OF 36,000 PSI OR A572 GRADE 50 (SEE PLAN NOTES).
2. AISC SPECIFICATIONS FOR "DESIGN, FABRICATION & ERECTION OF STRUCTURAL STEEL" - LATEST EDITION SHALL APPLY, EXCEPT AS MODIFIED BY THE NOTES, SCHEDULES AND DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.
3. WELDING ELECTRODES SHALL CONFORM TO E70XX ELECTRODES.
4. ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH AISC SPECIFICATIONS.
5. ALL WELDED CONNECTIONS SHALL CONFORM TO THE RECOMMENDATIONS OF AWS D1.1 AND THE NEW YORK CITY BUILDING CODE. PROVISIONS SHALL BE MADE FOR FIELD INSPECTION AND TESTING OF WELDS. ALL SHOP WELDS SHALL BE TESTED BY ANY OF THE APPROVED METHODS AND SHALL BE CERTIFIED.
6. ALL STEEL BOLTS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, LATEST EDITION: HIGH STRENGTH BOLTS A-325 AND UNFINISHED BOLTS A-307.
7. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM ON HOLES 13/16" DIAMETER UNLESS OTHERWISE NOTED.
8. ALL SHOP CONNECTIONS SHALL BE WELDED.
9. ALL COLUMN SPLICES, CONNECTIONS OF BEAMS TO COLUMNS, CONNECTIONS WITHIN 3 FEET OF COLUMNS AND CONNECTIONS OF BEAMS CARRYING MACHINE LOADS SHALL BE HIGH STRENGTH BOLTED AND WELDED IN THE FIELD. OTHER FIELD CONNECTIONS MAY USE UNFINISHED BOLTS EXCEPT WHERE SPECIFICALLY SHOWN OTHERWISE IN STRUCTURAL DRAWINGS. FIELD CONNECTIONS OF NEW CONSTRUCTION TO EXISTING CONSTRUCTION SHALL BE WELDED.
10. IN ADDITION TO MOMENT CONNECTIONS, PROVIDE MINIMUM SHEAR CONNECTIONS FOR ALL GRAVITY LOADS AS SHOWN ON TYPICAL SHEAR CONNECTION DETAILS.
11. ALL ENDS OF COLUMNS AT SPLICES AND AT OTHER BEARING CONNECTIONS SHALL BE MILLED TO COMPLETE TRUE BEARING.
12. MILLED STIFFENERS SHALL BE PROVIDED UNDER ALL COLUMN CONNECTIONS AND OVER ALL COLUMNS.
13. PROVISIONS SHALL BE MADE FOR CONNECTIONS OF OTHER TRADES INCLUDING CUTTING AND PUNCHING OF STRUCTURAL MEMBERS, WHERE REQUIRED BY THE DRAWINGS, OR FOR WHICH INFORMATION IS FURNISHED PRIOR TO FABRICATION.
14. THE USE OF CUTTING TORCH IN THE FIELD WILL BE PERMITTED ONLY AFTER SECURING ENGINEER'S APPROVAL.
15. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING REQUIRED TO MAINTAIN PLUMBNESS AND STABILITY DURING ERECTION.
16. CONTRACTOR SHALL PROVIDE STIFFENERS PER SECTION 1.15.5 OF AISC SPECIFICATIONS REGARDING THE NEED FOR COLUMN STIFFENERS.
17. ALL WELDERS TO BE LICENSED BY THE CITY OF NEW YORK.
18. FOR PAINTING OF STRUCTURAL STEEL SEE SPECIFICATIONS.

STEEL DECK NOTES:

1. STEEL DECK SHALL CONFORM TO THE CURRENT SPECIFICATIONS FOR THE DESIGN OF LIGHT GAUGE COLD FORMED STEEL STRUCTURAL MEMBERS PER AISI.
2. DECK SHALL BE ANCHORED BY WELDING THROUGH THE BOTTOM OF THE RIB TO STRUCTURAL STEEL AT MAXIMUM SPACINGS OF 12" WITH MINIMUM BEARING OR END LAP OF 2".
3. OPENING IN DECK SHALL BE TREATED AS FOLLOWS:
   A. FOR HOLES 6" OR LESS, PERPENDICULAR TO SPAN. NO REINFORCING REQUIRED.
   B. FOR HOLES OVER 6" BUT NOT MORE THAN 10". PROVIDE ONE 14 GAUGE REINFORCING PLATE 24" X 24" AND WELD IN PLACE.
   C. ALL OTHER OPENINGS TO BE FRAMED AS SHOWN ON PLAN.
4. STEEL DECK SHALL BE AS NOTED ON FRAMING PLAN.

SUPERSTRUCTURE CONCRETE NOTES:

1. ALL CONCRETE OVER METAL DECK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS U.O.N.
2. ALL CONCRETE IS TO COMPLY WITH ALL REQUIREMENTS OF CURRENT ACI CODE AND ALL OTHER RELEVANT SECTIONS OF THE NEW YORK CITY BUILDING CODE.
   A. PRELIMINARY TESTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND THE PORT AUTHORITY FOR REVIEW. NO CONCRETE SHALL BE PLACED BEFORE SUCH REVIEW HAS BEEN COMPLETED.
   B. LABORATORY TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND THE PORT AUTHORITY.
3. CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, ANCHOR BOLTS, ETC., AS REQUIRED BY ALL TRADES BEFORE CONCRETE IS PLACE.
4. ALL STRUCTURAL DRAWINGS SHALL BE WORKED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND ANY DISCREPANCIES SHALL BE COORDINATED WITH THE ARCHITECT.
5. NO DEVIATION FROM THE STRUCTURAL PLANS SHALL BE PERMITTED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE STRUCTURAL ENGINEER. ALL REINFORCING DETAILS TO BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL.
6. TRANSPORTING, PLACING, CURING AND DEPOSITING CONCRETE SHALL COMPLY WITH THE NEW YORK CITY BUILDING CODE AND THE ACI BUILDING CODE.

GENERAL NOTE:

CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS. THIS VERIFICATION SHALL INCLUDE A SURVEY BY A LICENSED SURVEYOR AND FIELD INVESTIGATIONS TO DETERMINE THE LOCATIONS AND ELEVATIONS OF THE EXISTING STRUCTURAL STEEL. THE LOCATION AND ELEVATIONS OF EXISTING SLABS SHALL ALSO BE VERIFIED. THE CONTRACTOR SHALL SUBMIT A WRITTEN REPORT AND SURVEY TO THE ENGINEER FOR HIS REVIEW AND/OR INSTRUCTIONS OF ACTUAL FIELD CONDITIONS WHICH MAY VARY FROM INFORMATION INDICATED ON THE DRAWINGS. THESE REPORTS WILL ALSO INCLUDE EXISTING CONDITIONS NOT SHOWN ON THE DRAWINGS WHICH MAY REQUIRE A REVISION OF THE INFORMATION ON THE DRAWINGS.

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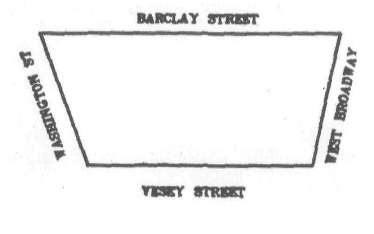

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
	6.9.95	AS BUILT—REF. REV. 6/11.5.93
	8/23/94	ISSUED FOR TENANT ALTERAT.
	7/22/94	RESPONSE TO P.A. COMMENTS
8	5/25/94	RESPONSE TO P.A. COMM.TS
7	4/6/94	REVISED AS CIRCLED
6	11/5/93	REVISED AS CIRCLED
5	10/4/93	CHILLED WATER LINE RELOCATION
4	6/2/93	ISSUED FOR ADDENDUM No. 1
3	5/21/93	ISSUED FOR TENANT ALTERATIONS
2	4/6/89	REVISED AS CIRCLED
1	3/1/89	REVISED, AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	12/19/88	SUBMITTED TO P.A.
	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS
	10/31/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

SOM

SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10018

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017
MEMBER: THE CANTOR/SEINUK GROUP.

TYPICAL SUPERSTRUCTURE DETAILS & GENERAL NOTES

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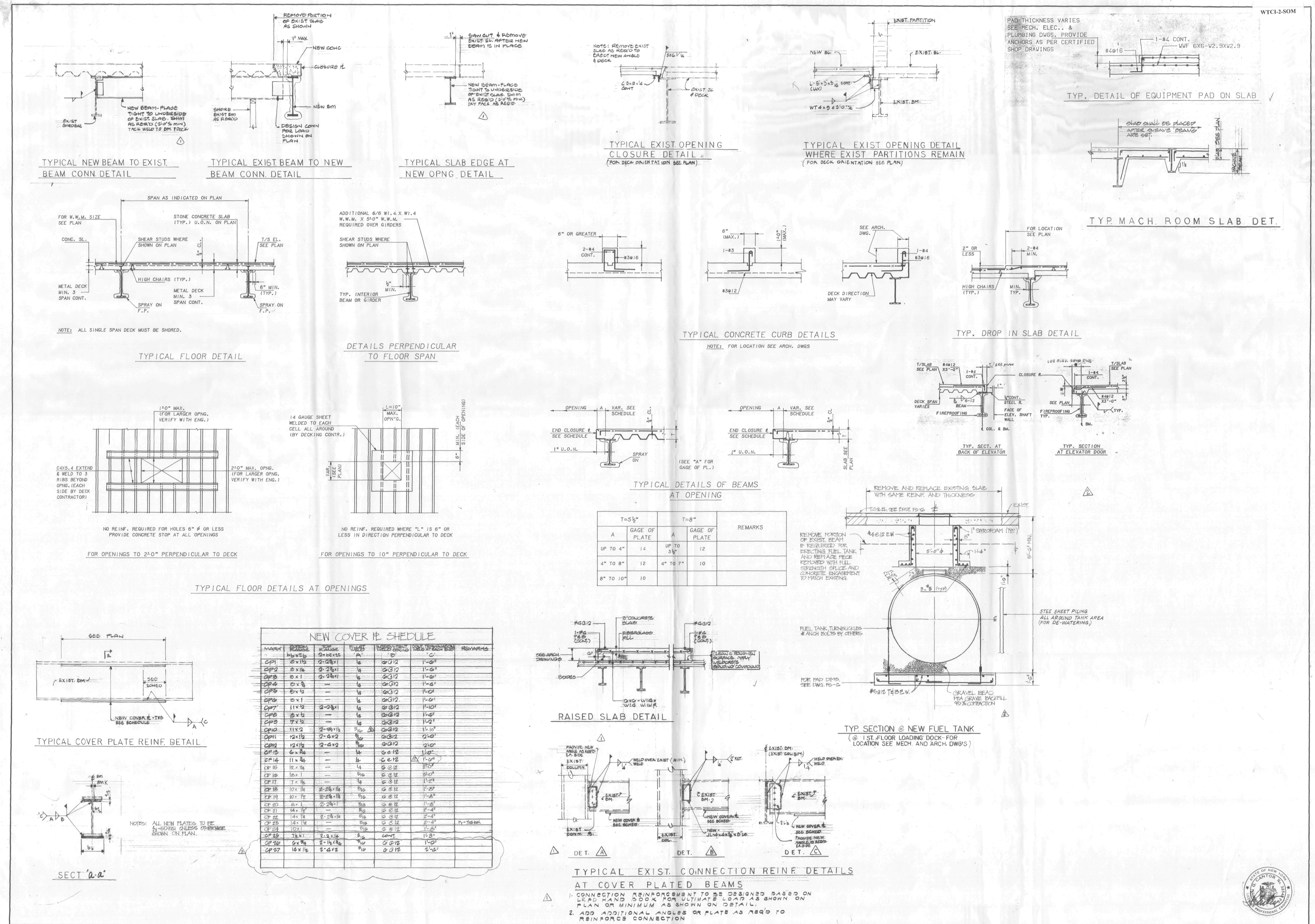

T=5½"		T=8"		REMARKS
A	GAGE OF PLATE	A	GAGE OF PLATE	
UP TO 4"	14	UP TO 3½"	12	
4" TO 8"	12	4" TO 7"	10	
8" TO 10"	10			

NEW COVER PL SHEDULE

MARK	BOTTOM FLANGE $b_b \times t_b$	TOP FLANGE $2-b_t \times t_t$	FILLET WELD "A"	INTERMITTENT WELD SPACING "B"	CONT. TERMINATION WELD AT EACH END "C"	REMARKS
CP1	9×1½	2-2¾×1	¼	6@12	1'-6"	
CP2	9×1¼	2-2¾×1	¼	6@12	1'-6"	
CP3	9×1	2-2¾×1	¼	6@12	1'-6"	
CP4	8×¾	—	¼	6@12	1'-4"	
CP5	5×½	—	¼	6@12	1'-0"	
CP6	9×1	—	¼	6@12	1'-6"	
CP7	11×½	2-2¾×1	¼	6@12	1'-10"	
CP8	8×½	—	¼	6@12	1'-4"	
CP9	7×½	—	¼	6@12	1'-2"	
CP10	11×2	2-3½×1½	5/16 (2)	6@12	1'-10"	
CP11	12×1½	2-4×2	5/16	6@12	2'-0"	
CP12	12×1½	2-4×2	5/16	6@12	2'-0"	
CP13	6×¾	—	¼	6@12	1'-0"	
CP14	11×¾	—	¼	6@12	(3) 1'-6"	
CP15	12×¾	—	¼	6@12	2'-0"	
CP16	18×1	—	5/16	6@12	3'-0"	
CP17	7×⅝	—	¼	6@12	1'-2"	
CP18	10×1¼	2-2¾×1¼	5/16	6@12	1'-8"	
CP19	10×1½	2-2¾×1¼	5/16	6@12	1'-8"	
CP20	8×1	2-2¾×1	5/16	6@12	1'-8"	
CP21	14×1½"	—	5/16	6@12	2'-4"	
CP22	14×1¼	2-2¾×1¼	5/16	6@12	2'-4"	
CP23	14×1½	—	5/16	6@12	2'-4"	Fy=36ksi
CP24	10×1	—	5/16	6@12	1'-8"	
CP25	7½×1	2-2×1¼	5/16	CONT.	1'-3"	
CP26	6×¾	2-1½×¾	5/16	6@12	1'-0"	
CP27	14×1½	2-4×2	5/16	6@12	2'-4"	

1. CONNECTION REINFORCEMENT TO BE DESIGNED BASED ON LRFD HAND BOOK FOR ULTIMATE LOAD AS SHOWN ON PLAN OR MINIMUM AS SHOWN ON DETAIL.
2. ADD ADDITIONAL ANGLES OR PLATE AS REQ'D TO REINFORCE CONNECTION

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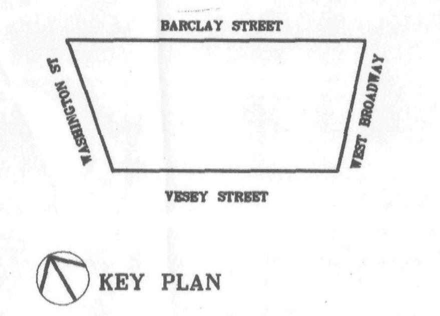

NOTES

LEGEND

No.	Date	Revision
3	6/9/89	REVISED AS CIRCLED
2	4/6/89	REVISED AS CIRCLED
1	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST
	12/22/88	SUBMITTED TO P.A.
	12/19/88	SUBMITTED TO P.A.
	11/21/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG. MODIFICATIONS
	10/31/88	SUBMITTED TO P.A. FOR APPROVAL OF BASE BLDG MODIFICATIONS
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG. MODIFICATIONS

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Structural Engineers
219 East 42nd St., New York, N.Y. 10017

TYPICAL SUPERSTRUCTURE DETAILS

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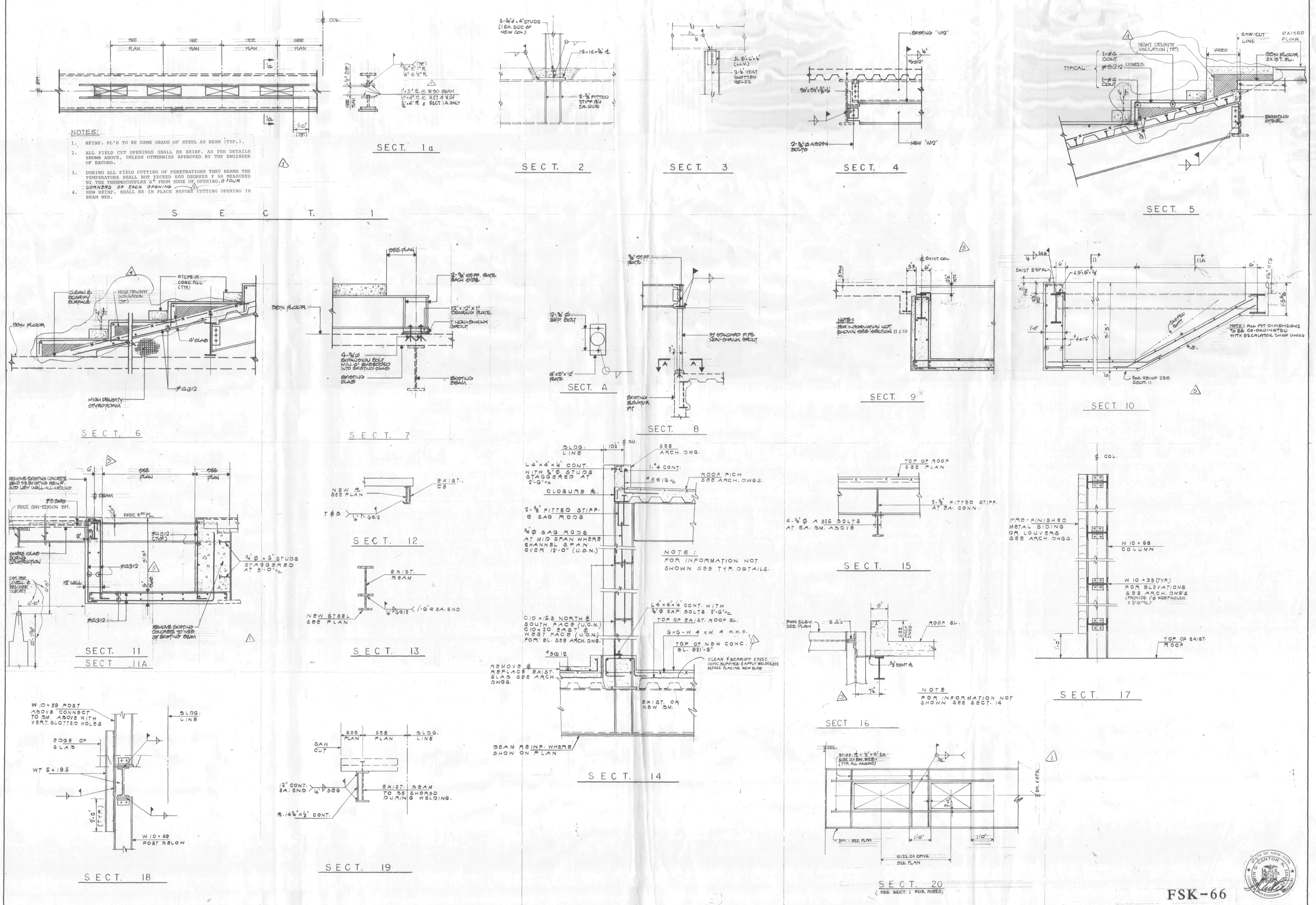

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BARCLAY STREET
WEST BROADWAY
VESEY STREET

KEY PLAN

NOTES

LEGEND

No.	Date	Revision
4	8-10-89	ISSUED FOR FIELD SKETCH
3	5-22-89	REVISED AS CIRCLED
2	4/6/89	REVISED AS CIRCLED
1	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
	12/19/88	SUBMITTED TO P.A.
	11/21/88	ISSUED TO PORT AUTHORITY FOR APPROVAL OF BASIC BUILDING MODIFICATIONS
	10/31/88	ISSUED TO PORT AUTHORITY FOR APPROVAL OF BASIC BUILDING MODIFICATIONS
	10/17/88	SUBMITTED TO PORT AUTHORITY FOR APPROVAL OF BASE BLDG MODIFICATIONS

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

SUPERSTRUCTURE
SECTIONS #1

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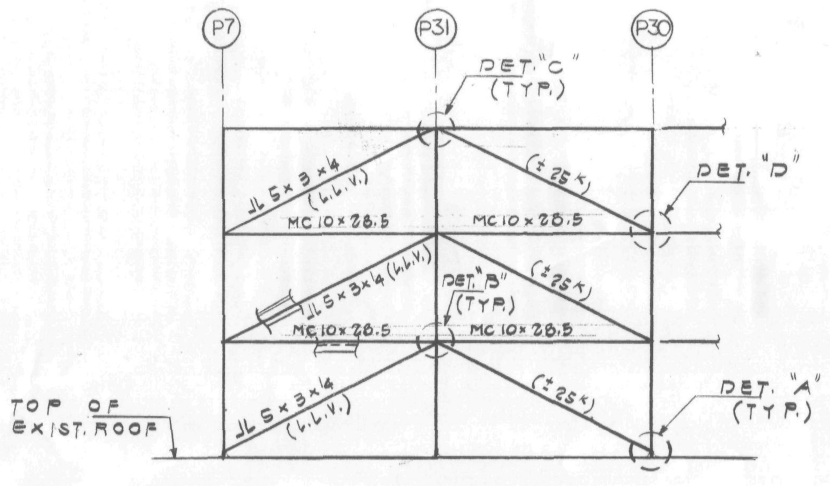
Project No.: | Sheet No.: S-34
Date:
Scale:

R3057



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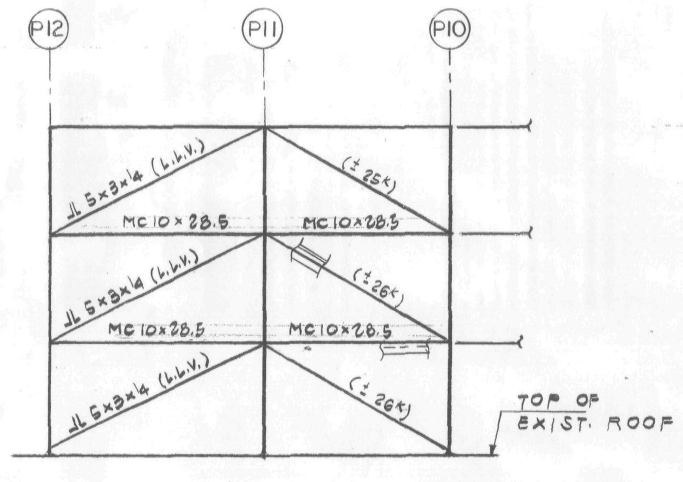

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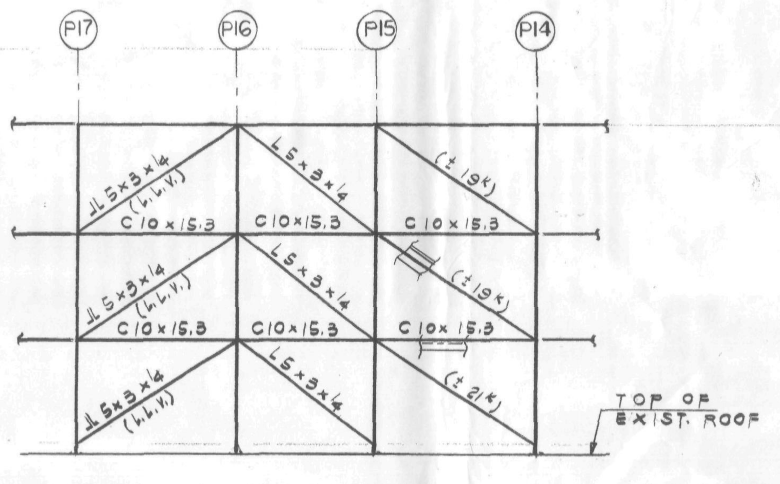

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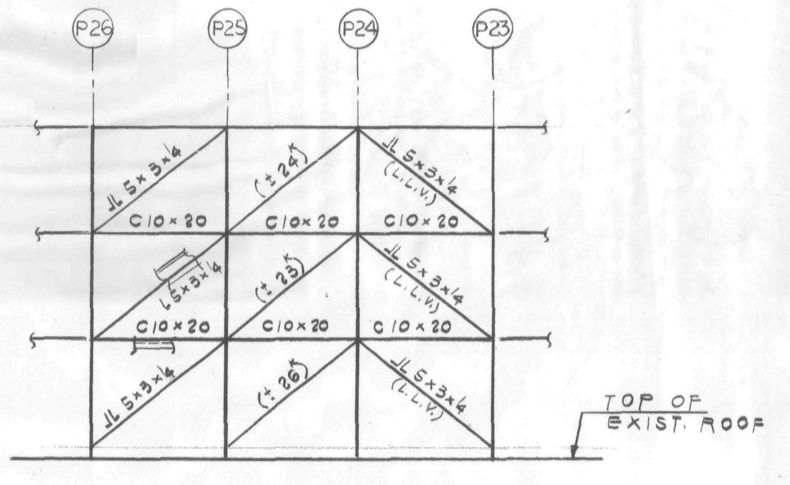

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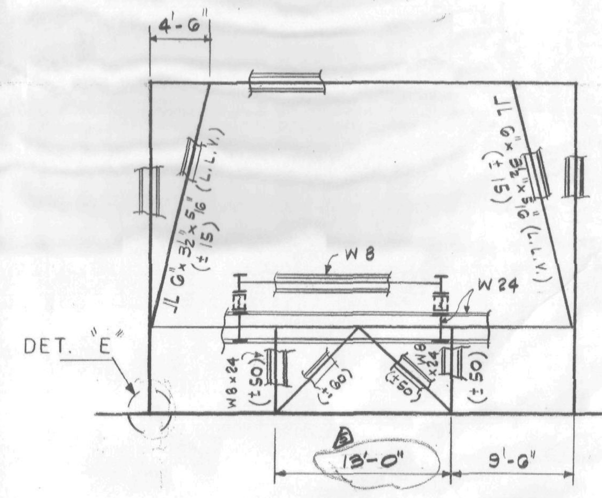

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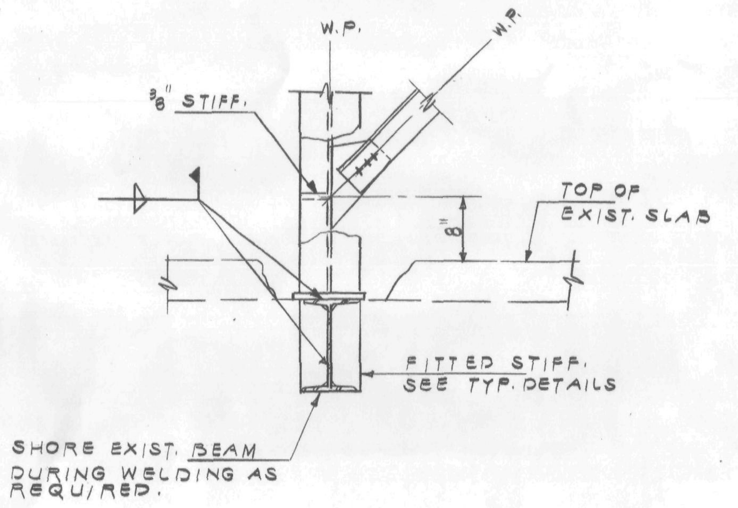

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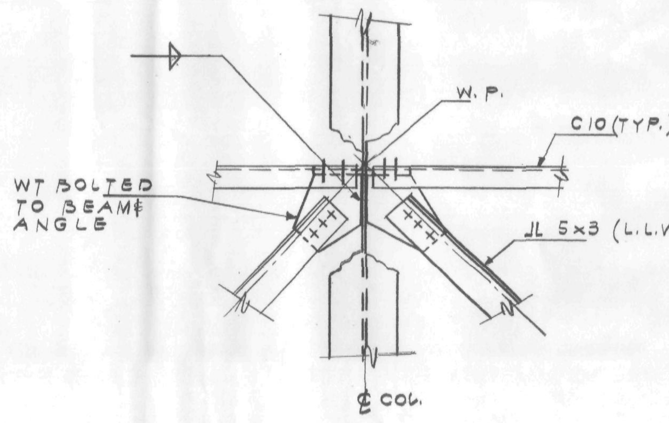

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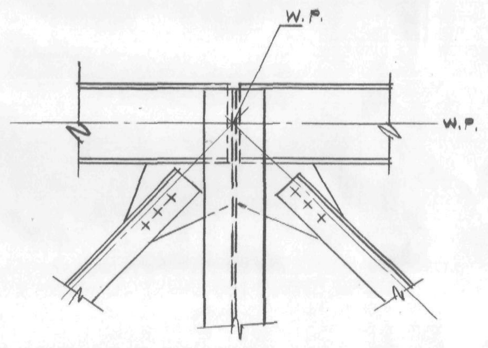

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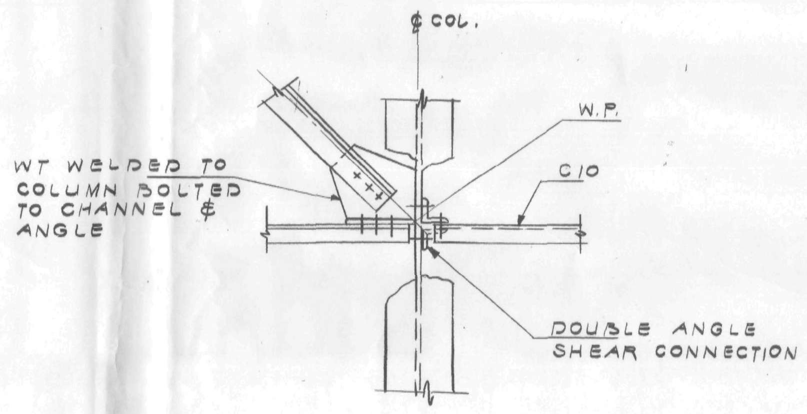

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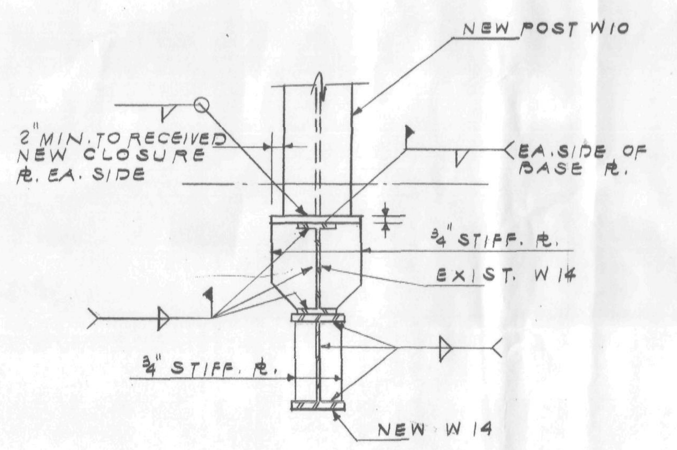
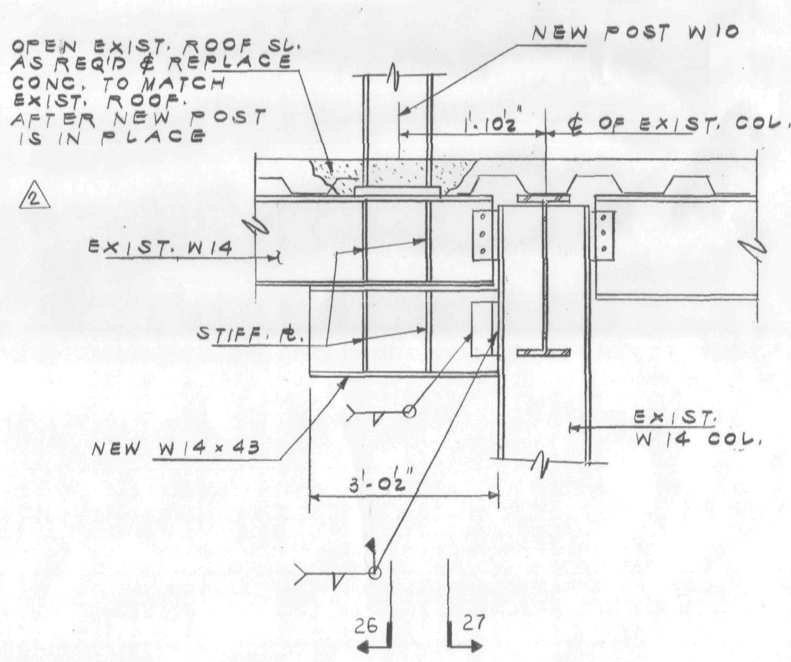


SECT. 26



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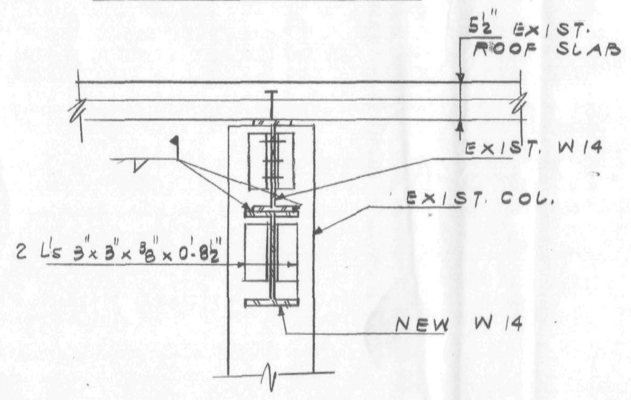

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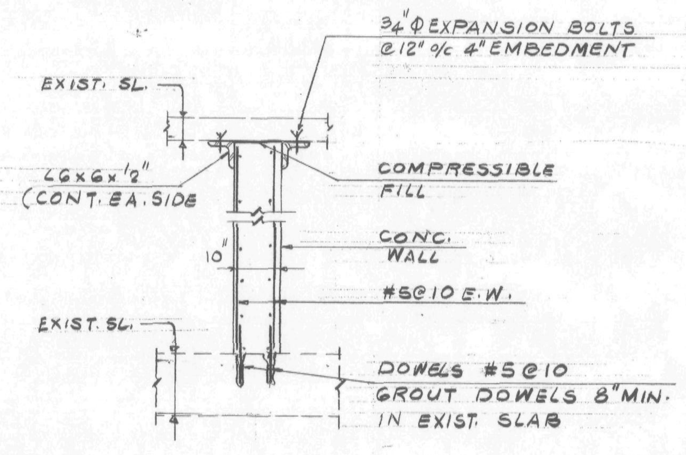

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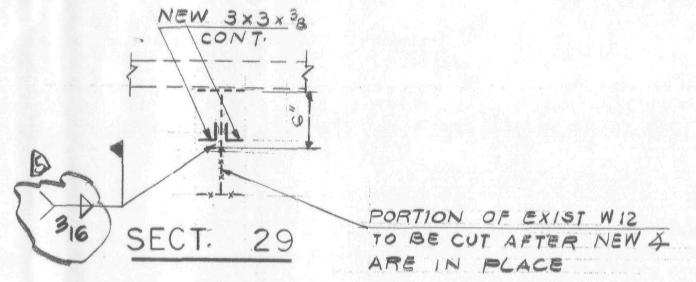

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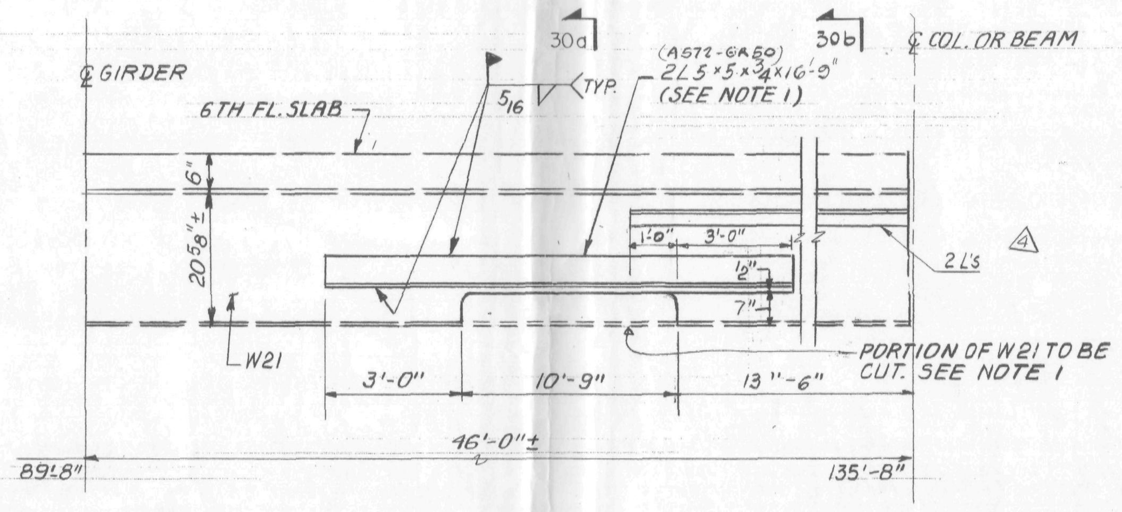
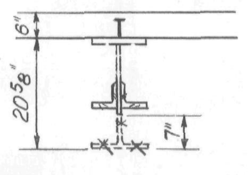
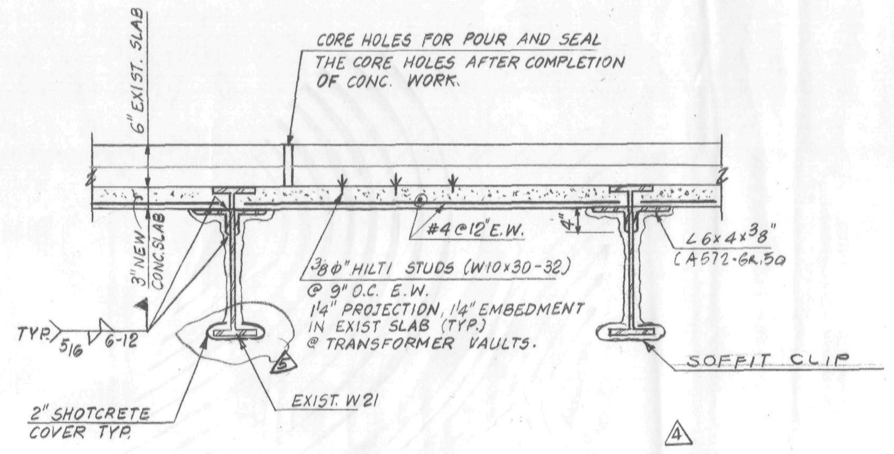


SECTION 30

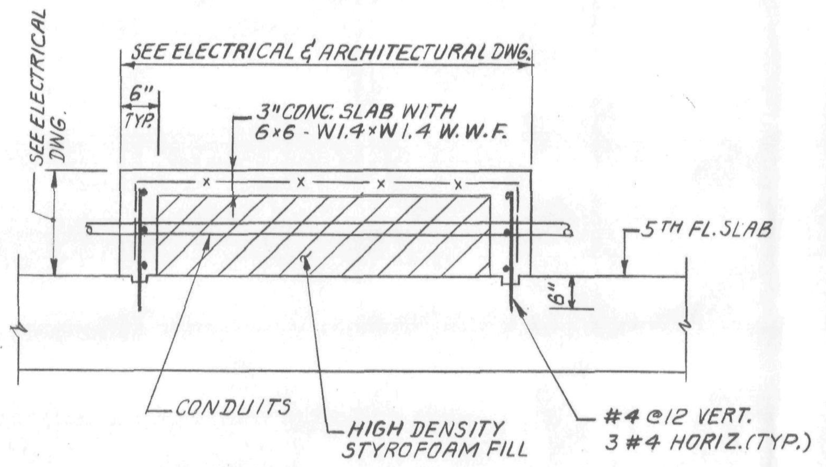
NOTE:
1. PROVIDE REINFORCEMENT BEFORE BEAM IS CUT.
2. CONTROL TEMP. BY TEMPSTICK TO 600°F AT 6" FROM EDGE OF CUT.
3. WELDING OF ANGLE BE DONE IN STAGGERED SEQUENCE (IE 50% WELDING ON ONE FACE)



SECTION 30a



SECTION 30b

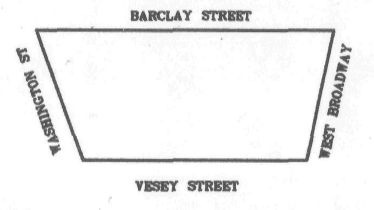


SECTION 31 - 31

(DETAIL FOR RAISED PLATFORM @ TRANSFERMER VAULT)

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
5	9/19/89	REVISED AS CIRCLED
4	5-22-89	REVISED AS CIRCLED
3	4-6-89	REVISED AS CIRCLED
	4-4-89	ISSUED FOR CON. [illegible]
2	1/20/89	REVISED AS CIRCLED
	1/3/89	ISSUED FOR CONST.
1	12/18/88	[illegible]

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SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

SUPERSTRUCTURE SECTIONS #2

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Date:

Scale:

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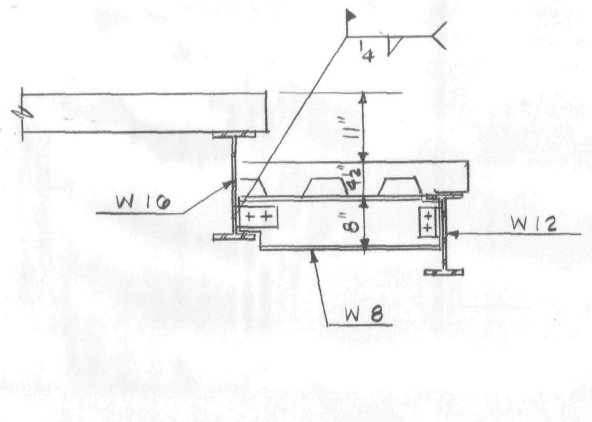
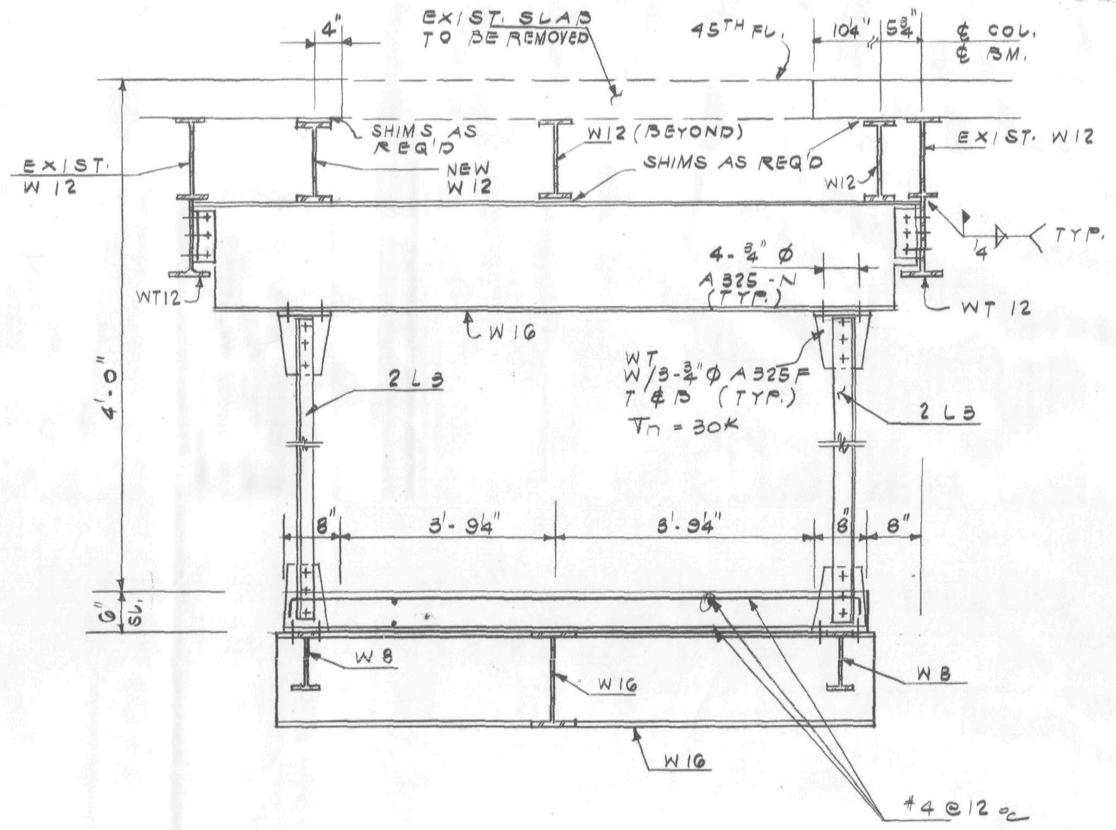


SECT. 32
(SECTION AT 41 & 43RD FL. BALCONY)



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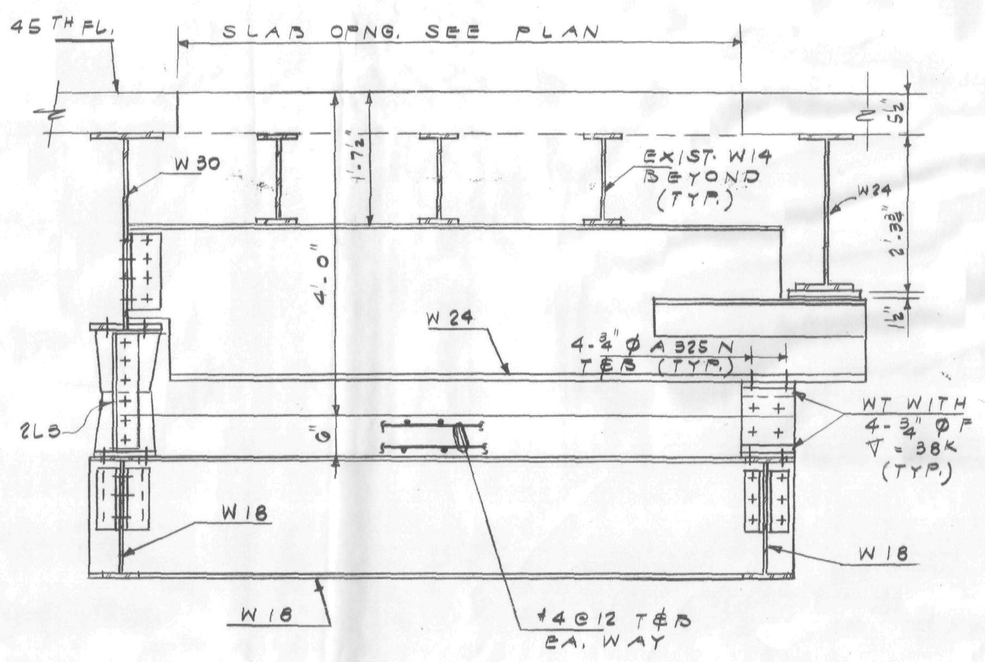
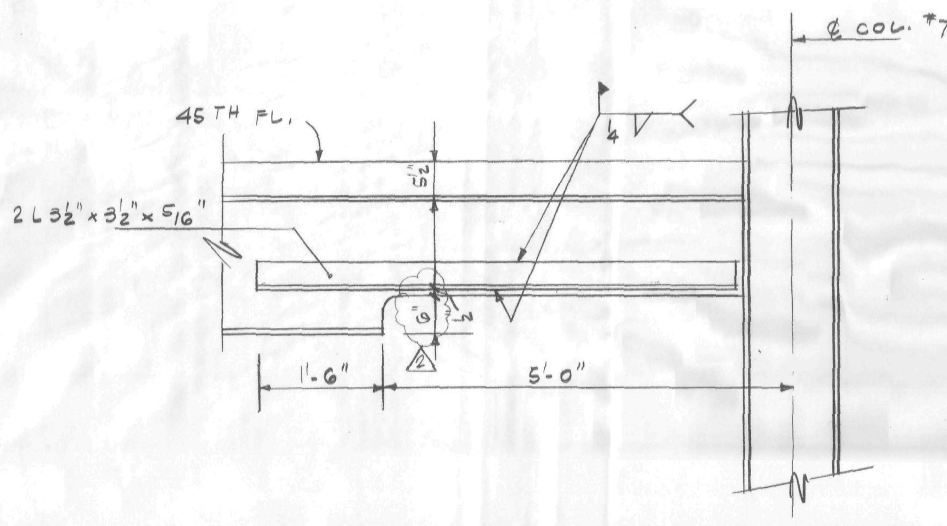


SECT. 34



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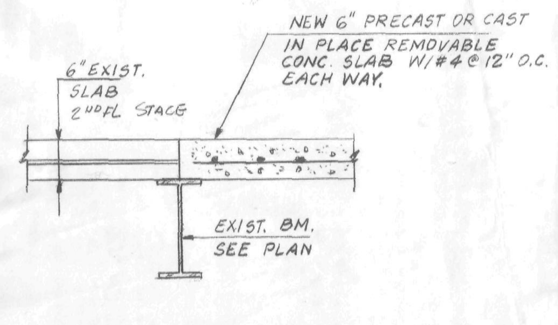

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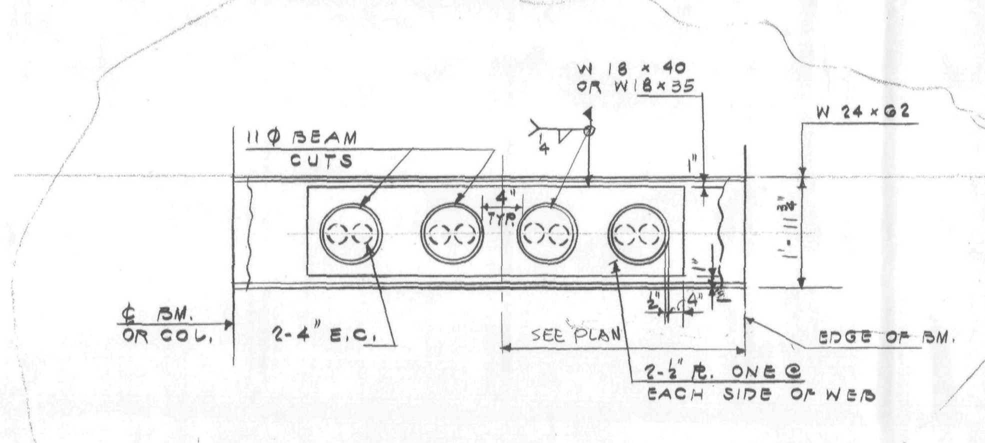

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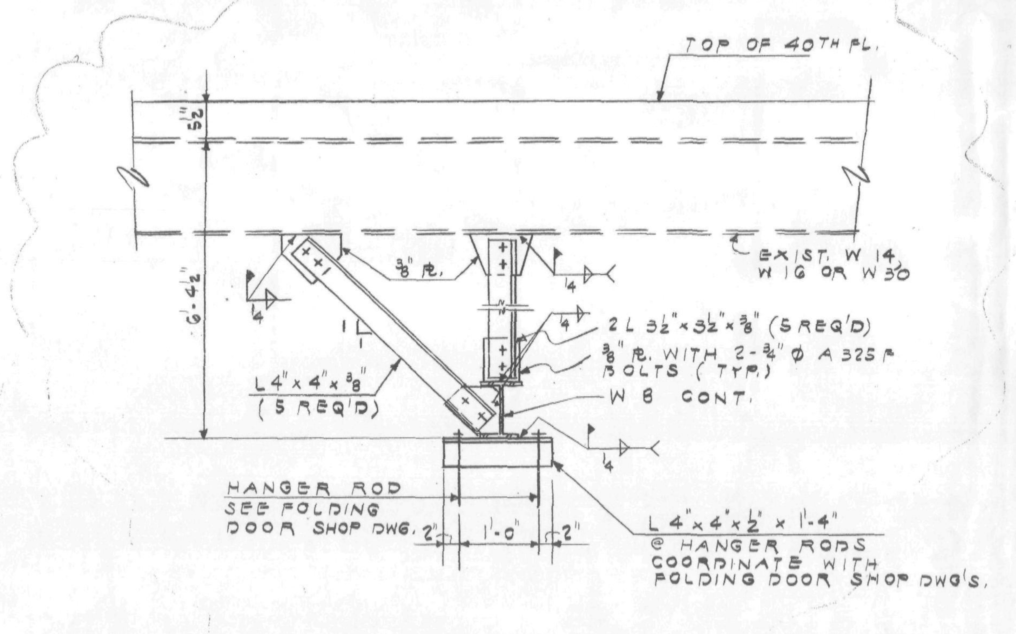
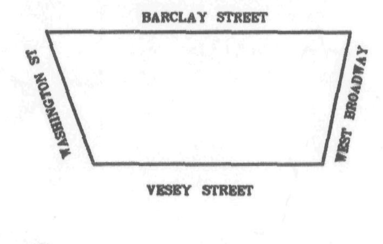


SECT. 38

Salomon Brothers Inc

7 WORLD TRADE CENTER HEADQUARTERS
NEW YORK, NEW YORK 10048



KEY PLAN

NOTES

LEGEND

No.	Date	Revision
3	3/30/90	REVISED AS CIRCLED
2	8/18/89	REVISED AS CIRCLED
1	5-22-89	REVISED AS CIRCLED
	4-6-89	

SOM
SKIDMORE, OWINGS & MERRILL
ARCHITECTS / ENGINEERS
220 East 42nd St., New York, N.Y. 10017

FLACK AND KURTZ
Mechanical / Electrical Engineers
475 Fifth Avenue, New York, N.Y. 10016

IRWIN G. CANTOR P.C.
Structural Engineers
219 East 42nd St., New York, N.Y. 10017

SUPERSTRUCTURE SECTIONS #3

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S-36